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(MTech, NHD, and ND)

DESIGN AND DEMOCRACY
TRANSFORMATIVE AGENCY WITHIN INDIGENOUS STRUCTURE

Thesis submitted for Doctor of Philosophy Degree

Faculty of Science, Technology, Engineering, and Mathematics

School of Engineering and Innovation

The Open University

23 April 2018

ABSTRACT

Umuntu ngumuntu ngabantu / A person is a person through other persons

Nguni proverb, origination date, and author unknown

Sourced from Metz and Gaie, (2010, p. 274).

South African democracy is perceived and evidenced to be under duress. This research questions how design, when underpinned by transdisciplinarity and abduction, can articulate and address this problem.

The literature is reviewed to map how designed objects, processes, and philosophy enable and hamper notions of democracy. Within this literature, two concepts are identified as key to a South African context, and require further research - Indigenous Knowledge Systems (IKS) and cosmopolitanism. The African concept of Ubuntu, a subset of IKS, is argued to function as an authentic context, however, its ability to influence urban and diverse environments is questioned. Cosmopolitan theory, and Dewey's focus on experimentation, is argued to promote normative organisation, and its application to facilitate urban and dynamic participation is questioned.

The Cape Town precinct - Long Street - provides a case study with which to unpack these two key concepts, and obtain empirical data to answer the research questions. Qualitative data is firstly obtained, from key informants who have the authority to influence the case study delineation. Based on this data, an Abductive instrument (Ai), based on Experience Design (XD) and Designing For Participation (DFP) methods, obtains quantitative data from public actors.

Findings from the research include: political philosophy is increasingly enabled and countered by design; design is required to deconstruct and not fortify South African democracy; design is capable of operationalising decolonisation as a constructive, and not reductive, act; indigeneity is being reclaimed in urban contexts, and reinterpreted by design; reflective participation, and not historical assimilation, is a fundamental challenge for political studies; publics experiment with, and not on, themselves.

The key implication of the research is designing critical representation, which is at the intersection of design, IKS, and cosmopolitanism. Here, empowerment is an indigenous imperative, design synthesises direct and representative democracy, and design intent is hyper-transparent.

DEDICATION

This thesis is dedicated to my parents, Demetri and Mary Lou Qually, who fought injustice under the Apartheid regime, and who continue to help South Africans understand the value and potential of democracy.

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LIST OF ACRONYMS

ACC	African Centre for Cities
ACM	Association for Computing Machinery
AD	Anno Domini
ADA	Americans with Disabilities Act
AFAI	African Arts Institute
Ai	Abductive instrument
AIGA	American Institute of Graphic Arts
ANC	African National Congress
ANT	Actor Network Theory
ASF	Apache Software Foundation
AU	African Union
B-BBEE	Broad-Based Black Economic Empowerment
BCE	Before Current Era
BMJ	British Medical Journal
BRICS	Brazil, Russia, India, China, and South Africa
CCID	Central City Improvement District
CCTV	Closed-Circuit Television
CEO	Chief Executive Officer
CID	City Improvement District
CoCT	City of Cape Town
COSATU	Congress of South African Trade Unions
CPI	Corruption Perception Index
CRPD	Convention on the Rights of Persons with Disabilities
CSC	Client Service Centres
CSIR	Council for Scientific and Industrial Research
CTP	Cape Town Partnership
DDoS	Distributed Denial of Service
DFP	Designing For Participation
DoH	Department of Health
DOJ and CD	Department Of Justice and Constitutional Development
EFF	Economic Freedom Fighters

EU	European Union
EVM	Electronic Voting Machines
EWN	Eyewitness News
FRI	Field Research Interview
FRP	Field Research Photography
GNU	GNU's Not Unix
ICC	International Criminal Court
ICE	Institution of Civil Engineer
ICSID	International Council of Societies of Industrial Design
ICT	Information Communication Technology
ID	Identity Document
IEC	Independent Electoral Commission
IEEE	Institute of Electrical and Electronics Engineers
IKS	Indigenous Knowledge Systems
IP	Internet Protocol
IxD	Interaction Design
JOMEC	Journalism, Media and Cultural Studies
KdF	Kraft durch Freude
LPE	Louisiana Purchase Exposition
MIT	Massachusetts Institute of Technology
MSMG	Multi-Spatial Metagovernance
MySQL	My Structured Query Language
NCSU	North Carolina State University
NDR	National Democratic Revolution
NFI	Non-Food Item
NHTL	National House of Traditional Leaders
NIKSO	National Indigenous Knowledge Systems Office
NORC	National Opinion Research Center
NP	National Party
NPC	Non-Profit Company
NPD	New Product Development
NPO	Non-Profit Organisation
NRF	National Research Foundation
NTIA	National Telecommunications and Information Administration
OAH	Organization of American Historians
ONS	Office for National Statistics
OU	Open University
PAC	Pan African Congress
PHP	Personal Home Page / Hypertext Preprocessor
RCA	Royal College of Art
RCAP	Royal Commission on Aboriginal Peoples
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa
SABS	South African Bureau of Standards
SAIRR	South African Institute of Race Relations
SCOT	Social Construction of Technology
SJC	Social Justice Coalition
STS	Science and Technology Studies
TAM	Technology Acceptance Model
TDC	The Design Cradle
TRC	Truth and Reconciliation Commission
UCT	University of Cape Town
UK	United Kingdom

UNDP	United Nations Development Programme
UNESCO	United Nations Organisation for Education, Science and Culture
UNIDO	United Nations Industrial Development Organisation
US	United States
USA	United States of America
USSR	Union of Soviet Socialist Republics
VAEHA	Voting Accessibility for the Elderly and Handicapped Act
VPN	Virtual Private Network
WDC2014	World Design Capital 2014
WEF	World Economic Forum
WIPO	World Intellectual Property Organization
XD	Experience Design
YWCA	Young Women's Christian Association

CHAPTER 1 WHY DESIGN AND DEMOCRACY

A crocodile comes out of the water to die.

Believed to be a Tsonga proverb, origination date, and author unknown

Sourced from Rattray (1933, p. 469)

The crocodile has a particular role in African imagery, and although it is revered for its power and covert prowess, it is an interpretation of democracy. Amoah (2012, p. 394) discusses the Adinkra Siamese crocodile symbol, which depicts two crocodiles conjoined at the belly. He notes it to be indicative of “individuality in relation to one’s membership in a society” and the “inherent difficulties of reconciling individual and group interests in a democratic system”. Our struggles for democracy are self-inflicting and hidden from view, and relative to the quotation above; when this struggle is over, our democracy has deceased.

This research is preoccupied with South African democracy, the mention of which brings two prominent images to mind. The first is the Apartheid state, a legislated system of racial segregation¹ developed by the South African National Party (NP) to benefit the country’s white minority. It was institutionalised from 1948 until 1994, during which time certain laws could dictate, for example, where a non-white South African could live², their access and quality of education³, and whom they could marry⁴. For the majority of the population, the Apartheid state devastated personal and community agency, and functioned as a subversive instrument to systematically degrade self-worth. It is remarkably ironic that the country was declared a republic in 1961, a term which is derived from the Latin *res publica*, which means “the common thing” or “the public good” (Ungureanu, 2011).

The second image is that of Nelson Mandela, who in many respects is considered the antithesis of Apartheid. He was imprisoned by the state for twenty-seven years for treason, and although many others were also jailed⁵, his release from prison in 1990 to eventually become the first democratically elected president of South Africa in 1994, puts

¹ The Population Registration Act No. 30 of 1950 required that “every South African was given a racial appellation, according to four main racial categories: African, Asian (people from the Indian sub-continent), colored (mixed blood), and white” (Morris, 1998, p. 759)

² The Group Areas Act No. 40 of 1950 was created with the “express intention of removing the Colored and Asian populations from the central areas of South African cities and creating a series of self-contained mono-racial suburbs” (Christopher, 1992, p. 572).

³ The Bantu Education Act No. 47 of 1953 placed all African education, except universities, under the Department of Native Affairs; the intention of which was made clear by the Minister of Native Affairs when introducing the act to the House of Assembly, with his comment “that Bantu Education should be designed to fit the ‘Native’ for his subordinate place in society” (Blamires, 1955, pp. 99-100).

⁴ The Prohibition of Mixed Marriages Act No. 55 of 1949 prescribed interracial marriage as illegal (Mutua, 1997, p. 72).

⁵ For example, in 1963 the Robben Island prison incarcerated approximately a thousand African National Congress (ANC) and Pan African Congress (PAC) political prisoners (Buntman, 2003, p. 82).

him at the forefront of indigenous emancipation and justice. During the early post-Apartheid years, and into his first term of office, the image of Mandela as reconciler began to eclipse South Africa's image as an Apartheid state. It is therefore unsurprising that posthumously he is still remembered as *Tata* by the nation, the isiXhosa word for father.

However, the optimism experienced during these years has since faded, and a somewhat familiar pessimism on the efficacy of government has re-emerged. The trust⁶ in Nelson Mandela and this form of paternal leadership has been replaced by a criticism⁷ of government that is openly corrupt and divisive. Perhaps for a young democracy, such unease is to be expected, and comfort should be taken in the remedial actions of the constitution, political system, and legal process. Yet, these institutions and processes arguably take decades to offer credible results, and during the interim, the public find themselves in a situation similar to Apartheid, where a governing minority has again paralysed their agency.

This is the real-life problem under review, simply stated as a deterioration of South African democracy. Attempts to reverse this trend have been exercised, yet they tend to further polarise the country. For example, the post-Apartheid police service that focused on "building community cohesion, and bridges between citizens and the police" has returned to its prior manifestation and "grown fond of calling itself a 'force'" (Faull, 2013, p. 31). In addition, new political parties are emerging that openly include warmongering terminology⁸ in their official name and public discourse. The calls for national unification that were common in the 1990s have splintered into populist interest groups, where the public are increasingly pressured into choosing and defending a political party or affiliation.

From an individual or personal livelihood perspective, discussions tend to be highly emotional and accusatory. This is understandable when a large portion of the population still live in informal settlements⁹, a quarter of the labour force are unemployed¹⁰, when

⁶ This leadership was both an investment into Nelson Mandela as well as being a wider social phenomenon. For example, the investment of responsibility in Nelson Mandela is evident in his clan name Madiba which is from his ancestor and "Thembu chief who ruled in the Transkei in the 18th century"; the name Khulu is an abbreviation of the isiXhosa word *Tat'omkhulu* for *grandfather*, but was applied to Nelson Mandela as "Great One" (Nelson Mandela Foundation, 2017). As a wider social phenomenon is concerned, Davis (2014, p. 169) notes how North American self-help literature selectively references from the complex Nelson Mandela narrative in a "strategic way by extracting anecdotes and quotations and reproducing them as techniques for self-improvement and self-actualisation".

⁷ The South African Institute of Race Relations (SAIRR, 2012) cites democracy indexes between 2008 and 2011, and notes that although the country has improved in areas of "political stability, good citizenship, and liberation of the poor" it has declined in areas of "control of corruption, civil liberties, and the ability of government to provide quality public services". An African Union (AU) report states that South Africans "feel betrayed, regarding corruption as a negation of democratic gains after a long period of struggle" and that "63% of South Africans think their leaders are dishonest" (Mail and Guardian, 2007, p. 17255A).

⁸ For example the Economic Freedom Fighters' (EFF) are described in their constitution as a "radical and militant Economic Emancipation Movement which brings together revolutionary, fearless, radical, and militant activists" (EFF, 2015). This use of revolution is dissimilar to, for example, the South African Communist Party (SACP), which advocates for a National Democratic Revolution (NDR) and which is the "achievement of a non-racial, non-sexist and prosperous society" (SACP, 2006).

⁹ Of South Africa's 234 municipalities, 23,9% or 56 have greater than 10% of dwellings being makeshift structures erected without approved architectural plan in informal settlements (Statistics South Africa, 2016a, p. 110).

Apartheid is questionably used by the South African Department of Health (DoH) as the foundation leading to the death of twenty-two infants from a bacterial infection (Sidley, 2006, p. 115); and most recently, when the South African Public Protector's (2016, p. 4) report on State Capture suggested "improper and unethical conduct by the president and other state functionaries".

1.1 WHAT IS THE PROBLEM?

The research problem is a critical review of the real-life problem of a South African democracy under duress. It is concerned with mapping the design and democracy landscape, and understanding what designed objects, processes, and philosophy may enable a South African democracy. Within this exploration, two key concepts are unpacked and argued to be pertinent to the research problem. The first concerns Indigenous Knowledge Systems (IKS), and the second, cosmopolitanism; it is from these concepts that the overlooked opportunities within South Africa are addressed, and experimentation argued to be able to facilitate participation in a South African democracy.

The motivations for the design and democracy study are threefold. Practically, the study looks to develop the application and efficacy of design within South African social change abstractions, and in turn displace the industrial, commercial, or ornamental connotation ascribed to it. Empirically, the study aims to contribute to the growing body of literature on design and democracy, and to do so specifically from a South Africa context. The thesis will reveal that the topic is not only underdeveloped in this country, but also that following its unique advance towards democracy, it can provide a novel contribution to international design and democracy studies. Theoretically, a driving motivation for the study was to unpack the assumed causal relationship between design and democracy in which design is considered a by-product of political agency. The thesis will discuss this relationship methodologically; firstly indicating how it emerged in a South African context, and ultimately how, by motivating for a partial inversion of causality, new design and democracy theory can be developed.

The idea for this topic emerged from the author living in South Africa, having an academic focus in design, and being frequently surrounded by peers immersed in politics. It is a culmination of a deep imperative dating back to a youth lived under Apartheid. Reflecting on these years is a surreal experience. I still remember the first time, at age eight, being called "sir" by a senior black man who paused, and allowed me to enter a grocery store

¹⁰ In 2016, South Africa had an unemployment rate of 26,5% (Statistics South Africa, 2016b, p. 1).

before him. I still remember watching my brother run from a police van after illegally removing and destroying a National Party election poster. I still remember at age nineteen, voting “yes” in a whites-only referendum to support the negotiations that ultimately ended Apartheid. I still remember at age twenty-six, living in London, and explaining the system of Apartheid to my colleagues and black landlord.

These recollections are no different to each other; they all fall within the comfort of white-privilege, where Apartheid was an observed phenomenon, and not an experienced one. In a post-Apartheid South Africa, and twenty-three years into democracy, these memories serve as a reminder that, although I did not support Apartheid, I was Apartheid. The study is therefore not only concerned with the post-Apartheid era as an academic inquiry, but also as an intimate reflection, which can be described as a decolonisation of the self¹¹. Understandably, this point has many research implications and which are discussed further in Chapter 4 Research design and methodology, as it introduces auto-ethnographic considerations and the potential for research bias.

1.2 BACKGROUND TO THE RESEARCH PROBLEM

Both design and democracy are polysemous and have numerous and, in turn, ambiguous meanings. Therefore, in order to appropriately engage with the research problem, a clear understanding of what is meant by the terms “design” and “democracy” is required. This section provides such clarification by reviewing their etymology, application patterns, and measurement of impact. The purpose is not to reduce each term to a single definition, or to specifically answer the research problem, but rather to reveal the inherent complexity that occurs when using terms that are historical, have mass-noun occurrences, and are used in both *populist*¹² and official discourse.

Design’s ambiguity frequently arises from its verb and noun occurrences. It can be used to express an action or to describe a physical item. As such, it can be a temporary or enduring phenomenon, and can be nominated to an actor or object. It is evident in expressions such as “designing”, “designer”, “design”, “designed”, and “designerly”, which all contribute to the difficulty of articulating a universal definition. Andruchow (2010, p. 4) develops this point when he notes that, although many words are polysemic, design is further complicated as it’s “many meanings are very closely related”. In order to

¹¹ Of interest to the South African context of the thesis, Alvares and Faruqi (2011, p. 291) use the term “decolonisation of the self” in their book titled “Decolonising the University: the emerging quest for non-Eurocentric paradigms”.

¹² Fieschi’s (2004, pp. 235-239) paper, which is dedicated to reviewing populism, references Laclau (1977) and notes that for a discourse to be populist, it “must refer to the people and it must function to create an antagonism between the dominant and the dominated”.

appreciate why design is key to the literature, the following discusses the historic usage of the term.

Gero suggests that a preoccupation with design dates back millennia (Papalambros, 2015, pp. 35-36). He notes it having been documented in ancient Mesopotamia with the Epic of Gilgamesh¹³ (2100 BCE), and its “instructions for a producing a boat”, and in the Code of Hammurabi¹⁴ (1750 BCE), that outlined the “social implications of poor design and construction”. With such historic usage, it is surprising that the first written citations are relatively recent. DiSalvo (2012, p. ix) suggests that the first written citation of design can be traced back to 1548 as a verb; the noun occurred decades later in 1588. From a substantive perspective, it makes causal sense for the verb definition to precede the noun, as an action is firstly required to create the resultant object. Yet, a review of design’s etymology suggests that a higher abstraction was intended. As a verb, it is derived from the Latin *designare*, which translates to “designate” (Oxford, 2010b). In this occurrence, design can be appreciated as being conceived within power dynamics as a nomination of an action onto another, and it can either afford or hinder the receiving party. In this regard, even well-recognised definitions of design, such as Simon’s (1996, p. 111) statement that it is concerned with “courses of action aimed at changing existing situations into preferred ones”, appear incomplete, as it does not indicate for whom the situation is preferred.

The following will develop this point closer to the research problem by reviewing dictionary definitions¹⁵ of “design” for each of South Africa’s eleven official languages. An understanding of how these contextual definitions are framed prior to reviewing the design and democracy literature, allows for both application and suitability to be assessed. The South African definitions are organised in Table 1.1 below by percentage of home language speakers (Statistics South Africa, 2004, p. 12). The largest language population segment is at the top of the table, and the smallest at the bottom.

Table 1.1: South African definitions of design

	%	Dictionary entry of ‘design’
IsiZulu	23,8%	“noun (pl. designs) 1 ■ icebo; umklamo; ukuqonda. There is a new design for our uniforms. Kukhona umhlamo omusha lemifaniswano yethu. 2 ■ isifanekiso; umdwebo. That’s a pretty design on your tablecloth. Isifanekiso esihle leso esisendwangwini yakho yetafula” (Oxford, 2010a, p. 328)

¹³ Pruyser and Luke (1982, p. 75) note that The Epic of Gilgamesh is a work of fiction about a heroic, yet arrogant king, and his relationship with the gods in a time of social crisis and his search for immortality.

¹⁴ Hammurabi was a ruler of Babylon who developed a set of laws. The one pertaining to design is stated as follows: “If a builder has built a house for a man, and has not made his work sound, and the house he built has fallen, and caused the death of its owner, that builder shall be put to death” (Neale, 2008, p. 47). Of particular interest, another law outlines how the teaching of a “craft” to an adoptee inadvertently supersedes the rights of a biological parent. Specifically, and as stated in the code, “If a craftsman has taken a son for bringing up (in his craft) and teaches him his craft, he shall not be (re)claimed” (Nagarajan, 2011, p. 115).

¹⁵ These definitions were primarily obtained from the sources available at the University of Cape Town’s (UCT) Oppenheimer library in 2013.

	%	Dictionary entry of 'design'
IsiXhosa	17,6%	"vt. vi. (prepare a sketch, plan) -yila; eg. ~ a dress: -yila ilokhwe; ~ for (intend): -misela; eg. this room is ~ .ed for the children: eli gumbi limiselwe abantwana; ~, n. uyilo (ulu-), ingqaleko (in- iin-); (pattern, arrangement of lines, etc.) umfanekiso; isihombiso; (purpose, intention) uxunelo (ulu-); eg. whether by accident or ~, he arrived too late: nokuba kungokuzenzekela okanye ngoxunelo wafika kade; ~er, n. umyili; ~ing, n. ukuyila; ~ing, adj. -noboqhophololo, -nobughe-tseba; ~edly, adv. Ngoxunelo, ngabom" (Oxford, 2005, p. 154)
Afrikaans	13,3%	"opset; opsetlik" (Anon, 1984, p. 69).
Sepedi	9,4%	No entry for design (Prinsloo and Sathekge, 1996).
Setswana	8,2%	"N., boikaêlêlô; toga-maanô; setshwantshô; sekaô. ____, V.T., to purpose, ikaêlêla; contrive, loga maanô; draw a plan, etc., tshwantsha" (Anon, Setswana-English-Setswana dictionary, 2001).
English	8.2%	"► the art or action of conceiving of and producing such a plan or drawing. ► purpose or planning that exists behind an action or object. 2 a decorative pattern" (Oxford, 2002, pp. 314-315)
Sesotho	7,9%	"N., morero" (Kriel, 1950, p. 305).
Xitsonga	4,4%	No entry for design (Anon, 2005).
SiSwati	2,7%	No entry for design (Rycroft, 1981).
Tshivenda	2,3%	"n makolo, nyolo v ola" (Anon, 2006).
IsiNdebele	1,6%	"(n.) umtamo, umkhakhanyo (v.) -tlama, -khakhanya" (Anon, 2006, p. 173).
Other	0.5%	Not applicable.

A review of the entries highlights an omission of design definitions for Sepedi, Xitsonga, and siSwati, which collectively make up 16.5% of the South African population. The absence of a definition suggests that design may lack formality as a discipline, method, or activity for the represented groups, or that it was not considered a valuable entry by the dictionary authors. In either case, omission does not equate to a lack of design capability for these population segments. Of interest, the largest population segment, IsiZulu, notes design only as a noun. However, the same dictionary includes an entry titled "design brief", which mentions, "problem solving" (Oxford, 2010a, p. 328). In the latter usage, design is positioned as a verb, and rather than being preoccupied with tangible outcomes, it is indicative of a higher level of abstraction, use of design theory, and methodology.

If the table definitions are read collectively, design is frequently defined with innocuous or functionalist terminology, for example, "pretty", "dress", and "plan". In South Africa, such usage is perhaps a legacy issue, with design historically taught within a technical framework in the country's Technikons. These functionalist-based tertiary institutions have since evolved into Universities of Technology, and, arguably in response, traditional Universities¹⁶ have started offering a design syllabus. As design shifts from a technical to a theoretical imperative, the use of simplistic terminology may start to be replaced, and

¹⁶ See, for example, the D-School, which is part of the University of Cape Town (UCT). Its objective is to "capacitate students and professionals in design thinking as an enabler of innovation and new outcomes that can meet the needs of users in complex socio-political and economic contexts" (UCT, 2017).

more appropriate descriptions, suited to design's role in critical thinking, will start to emerge.

From a legislative perspective, Tunstall (2007, p. 11) notes that "design promotion policies are more concentrated in Europe, North America, and Asia", and although South Africa has the only "design promotion agency in Africa", it does not "imply a formal design promotion policy document". The South African legislation or organisations that do promote design are somewhat rudimentary. For example, the Designs Act No. 195 of 1993 defines design as "an aesthetic design or a functional design" (*Designs act*. South Africa. Parliament of the Republic of South Africa, 1993.), and the South African Bureau of Standard's (SABS) Design Institute states that it aims to promote the "benefits of good design in order to stimulate the economic and technological development of South Africa" (SABS, 2008). It is unclear how long legislation will take to will follow the growth of design within tertiary education. For example, consider Joffe's (1999, p. 87) overstatement that the inclusion of "functional designs" is an "important innovation" from the Design Act's precursor, the Designs Act No. 57 of 1957.

The aforementioned discussion suggests that South African indigenous design definitions are archaic, evolving, or missing. It is unclear if these definitions were derived from each author's design literacy, or if they were developed under an overarching political imperative. For example, considering that Apartheid preferenced agency to specific population segments, and if the Latin root of design points to affording or denying agency, it can be argued that keeping design definitions within a simplistic, or low, abstraction would have aided the State in incubating passiveness¹⁷. Although this point is speculative, it is an important consideration when reviewing literature that specifically redefines design.

A similar argument applies to ascertaining design impact using metrics such as commerce and duration. For example, Gilbertson (2006, pp. 125-128) calls for the need to "measure the value of design" in the construction industry, which will allow for the ability to "steer the design process" and "leverage reductions in whole-life service delivery cost and improvements in speed and quality". Although such points are not problematic, they do overlook design's unforeseen impact or engagement with a subtle phenomenon that is challenging to measure; for example, if a building is to engender trust or dignity. This is naturally methodological, and a quantitative and qualitative concern, but it is also a transdisciplinary argument claiming that the measurement of design impact should not be

¹⁷ South African design as pacification is arguably also revealed in design promotion material. For example, a SABS Design Institute (2012) poster read "What if Africa is the go-to place for design?", and in doing so, introduced a narrative that questioned the allowance for African design and designers to compete in a global economy.

prematurely over-constrained. This point will be discussed further in Chapter 4, which is concerned with the research design and methodology, and will develop how a mixed-method approach has been used to research understated South African phenomena.

The next ambiguous definition that requires unpacking prior to the literature review discussion, is “democracy”. The term is derived from the Greek word *dēmokratia*, which was coined in the fifth century BCE, and literally translates to “the power (kratos) of the people (dēmos)” (Strauss, 2013). This relationship between power and the people is described by Saunders (2011, p. 283) as a “form of collective agency”. Two broad approaches to democracy are evident, the first is direct-democracy, and the second is indirect-democracy. Rhodes (2009, pp. 202-203) notes the former to be used by the original small Greek states, which allowed all citizens (Adult males) the opportunity to make decisions. He notes the latter as being used in large modern states, when citizens elect representatives to carry out decisions on their behalf.

South Africa has a historic, if curtailed, system of representative-democracy, which can be traced back to the formation of the Union in 1910. It was at this point that the country’s four provinces “amalgamated, under a single government”; although voting within this system was generally limited to Dutch and British persons in three provinces, the Cape Colony allowed “natives and colored men, if possessed of the necessary property and able to write their names are allowed to vote” (Leacock, 1910, pp. 498-505). South Africa has used direct-democracy in the form of referendums, arguably the most notable of which was in 1992, which helped dismantle the Apartheid regime. Kersting (2010, pp. 215-220) states that, in general, “referendums are often used in transitional constitutional processes” and help provide a “solution to factionalism”. In relation to South Africa, a referendum was used by the 1992 President de Klerk to strengthen “his legitimacy and his negotiation position”. He notes that it was in this referendum that white South Africans were asked if they supported de Klerk in the negotiations to end Apartheid - of an eighty-five percent voter turnout, more than two-thirds provided support.

The historic origin of democracy may suggest that it has always been a preferred system of governing. However, as Huntington (1991, pp. 12-14) points out, it is a relatively recent phenomenon, and one that operates in a “wave” manner, where the peaks and troughs reflect the growth and decline in the number of total democracies. He suggests that the first wave emerged in the 1820s, and peaked with twenty-nine democracies, the second in the 1940s with thirty-six democracies, and that the third wave started in the 1970s. At the time of his writing, the third wave of democracy was increasing, and a contemporary update is provided by Diamond (2011, p. 299) who suggests that it peaked in 2006 with one hundred and twenty-one democracies, or sixty-three percent of all global states.

South Africa, having democratised in 1994, forms part of the third wave. Appreciating that democracy operates within a wave effect provides an analytical tool for reviewing the literature, which may indicate whether design is being used to further amplify, or counteract, a decline in democracy.

The third and final definition that requires discussion is “political”. The term is of Greek origin, and is derived from the word *politikos*, which translates to “of, or pertaining to, the polis”, where polis is Greek for “city-state” (Miller, 2012). Two broad forms of political are evident. Shook (2009, pp. 634-635) distinguishes between political science and political philosophy. He states that, although the two are related, political science is concerned with how governments “exist and evolve”, how they “seek legitimization and citizen participation”, and how they “acquire and allocate political power”. Political philosophy, on the other hand, questions on what “grounds are governments justifiable” and “preferable to others”. From his descriptions, political science can be framed as informing the detailed and structural *how* of democracy, and political philosophy in turn, a normative *what* of a democracy.

A common approach to describing political philosophy is with a left-wing to right-wing political spectrum. It attempts to provide a “spatial logic for understanding politics”, which emerged from the “French Revolution of 1789”, where the “National Assembly divided supporters of the king to the right and supporters of the revolution to the left in the Assembly Chamber” (Brady, 2011, p. 312). Such physicality has since developed into contemporary notions of left-wing and right-wing being associated with broad approaches to political philosophy. For example, *socialism* is positioned on the left of the spectrum, *conservatism* on the right, and *liberalism* in the centre¹⁸. Shook (2009, p. 637) criticises this model, describing it as being a “model of its distinctive era”, and if read with democracy being a wave effect, such a linear and static approach arguably has limited academic value.

Unlike design, measuring the impact of democracy is relatively well established, and datasets are available from, for example, Freedom House and the Polity IV Project. The former provides an “annual report, assessing the condition of political rights and civil liberties around the world” (Freedom House, 2017), and the latter, global trends in governance from 1800-2015 for all major and independent states in the global system

¹⁸ Neill (2006, pp. 7-10) states that, although liberal, conservative, and socialist political thought evolves over time, they do have a “core ideological commitment”. He suggests that, in the second half of the nineteenth century, socialism reaffirmed a “confidence in the possibility of a genuinely altruistic future society” as well as the aim to “reform the whole of society”. He notes that liberalism developed an emphasis on the “value of personal freedom more firmly with the normative goal of self-development” and on “stressing the importance of obtaining socioeconomic freedom for individuals”. Lastly, Neill suggests that conservatism advocated for the “importance of traditional social relationships within nation-states” and increasingly stressed the “importance of free trade, personal liberty, and nationalism”.

(Center for Systemic Peace, n.d.). Although such datasets are insightful, focusing on universal indices may conflict with contextual nuances. Bogaard's (2007, p. 1229) research into election outcomes in Africa, suggests incompatibilities in measures of democracy against election outcomes. He reviews South Africa's 2004 elections, and the African National Congress' (ANC) continued dominance in the polls. Although the results were approved by the Independent Electoral Commission (IEC), and celebrated by the African Union (AU), he notes that a consequence was that South Africa was "recoded" as undemocratic by numerous political commentators. This was due to the ANC crossing the seventy percent of votes and seats "benchmark", and remaining in power for three consecutive terms.

This section discussed and unpacked definitions of design and democracy. In doing so, it revisited common terms applicable to the research problem by reviewing their etymology, contextual application, and measurement. The purpose was not to establish absolute definitions, or to directly address the research problem, but rather, to reveal that a design and democracy study is dependent on historical context and cultural affiliation. The section argued that the research problem, of how design should contribute to enable South African democracy, is unable to be appropriately addressed using existing instruments or datasets. They are either non-existent or inappropriate to contextual nuances. The following section discusses the implications of this finding, and why a progressively focusing¹⁹ approach has been used, and how key concepts have been identified, and research questions answered.

1.3 RESEARCH PROBLEM AND RESEARCH QUESTIONS

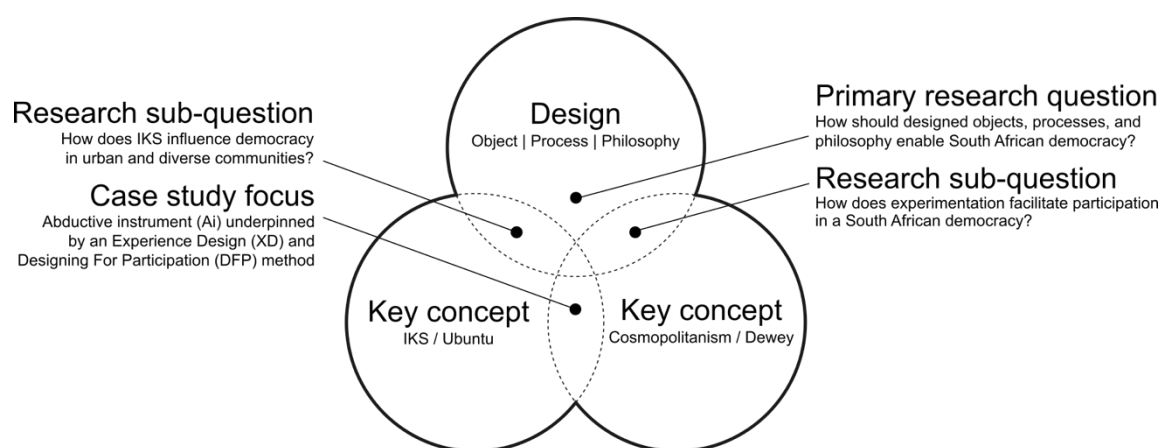


Figure 1.1: Conceptual framework

¹⁹ Cryer (2006, p. 68) defines "progressive focusing" as research that explores the specifics and significance from previous stages.

The conceptual framework illustrated in Figure 1.1 above, provides a visual overview of how the research problem and research questions are addressed. The figure comprises three elements: a top circle, which represents a broad design and democracy literature review, a left-hand circle, which is a key concept of how Indigenous Knowledge Systems (IKS) fulfil an authentic context, and a right-hand circle, which is a key concept of how cosmopolitan theory facilitates normative organisation. The thesis will argue that these two key concepts are inadequately researched within academia, yet, are pertinent to appreciating how design should influence democracy in a South African context.

From a terminology perspective, the top circle is concerned with exploring and organising the design and democracy literature, and the bottom two circles are concerned with explicating and developing two key concepts from this data. Although the conceptual framework appears novel, it is aligned with contemporary transdisciplinary approaches that point to notions of design and democracy²⁰.

The primary research question explores how designed objects, processes, and philosophy should enable South African democracy. Within the conceptual framework, it is predominately answered within the broad literature review (Top circle). Here, the research explores how design and democracy can be organised into layers of abstraction, and how, within these abstractions, design and democracy can be framed as a historical phenomenon, an emerging and subversive agent, a strategic use of conflict, an arbitrator between individual and collective agency, and a culmination of national or international sentiment.

The use and semantics of the term “should” in the primary question requires clarification. Chapter 2 will introduce and unpack how designed objects, processes, and philosophy “can” enable notions of democracy, and as the thesis develops, this term will progressively be replaced by “should”. From a linguistic perspective, where the former is concerned with range of possibility, the latter is concerned with critical questioning within such possibility. It is therefore not prescriptive but relativist in approach, which will be demonstrated in how the thesis explores and answers the primary question in a hyper-transparent and multi-perspective manner.

²⁰ For example, Escobar (Forthcoming), in an unpublished book, discusses “civilizational conjuncture, its implications for design theory and practice”. He develops the “ontological dimension of design” and discusses themes of “cultural, civilizational, and ecological transitions”. Of interest, he notes the term Ubuntu, but does not discuss it beyond mentioning its use in a South African context. Another example is from Bidwell and Winschiers-Theophilus (2015, p. viii) and their book titled “At the intersection of indigenous and traditional knowledge and technology design”, which is a collection of papers that “help us to ask, what is an ‘indigenous design’”. Again, the concept of Ubuntu is mentioned, but only in a cursory manner.

The first sub-question focuses on how IKS can influence democracy in urban and diverse communities. It is addressed at the intersection of the IKS key concept (Left-hand circle) and the broad literature review (Top-circle). Here, the research questions what is meant by the term “indigenous”, why IKS is pertinent to the country’s democracy, how IKS provides an authentic resource with which to redress past injustices, and ultimately, how Ubuntu, as a subcategory of IKS, can function as a decolonial instrument to assist design in enabling South African democracy.

The second sub-question unpacks how experimentation can facilitate participation in a South African democracy. It is addressed at the intersection of the cosmopolitan key concept (Right-hand circle) and the broad literature review (Top circle). Here, the research questions what is meant by the term “cosmopolitanism”, why it is emerging in design and democracy research, how it contributes to a political philosophy that is the antithesis of Apartheid, how it is concerned with international relationships and geopolitical agency, how it provides a reflective countermeasure to IKS’s internal agency, and ultimately, how a Deweyan creative democracy affords experimenting with normative organisation.

The sub-questions are addressed mainly by primary research, and to some degree, by secondary research. Although a wealth of literature is discussed throughout the research, it is ultimately contextual data from the field that is required to answer the sub-questions. Within the conceptual framework, this primary research is located at the intersection between the IKS key concept (Left-hand circle) and the cosmopolitanism key concept (Right-hand circle). Here, the research will argue that, in order to adequately address the questions in a South African context, data needs to be obtained using an abductive logic of enquiry. It is such data that will be argued to be indicative of how repressed, oblique, and liminal modalities of design both enable and hamper notions of democracy. The research design and methodology, as discussed in Section 4.1.3, will argue that the Cape Town precinct - Long Street - provides an ideal case study delineation in which to obtain such data. Being a historic and dynamic urban environment, it allows for both pre-democracy tensions and contemporary experiments to be researched.

Within the conceptual framework’s composition of design, IKS, and cosmopolitanism, two relational dynamics require further discussion. The first is interpretive, and concerns the motivation behind the Venn circles being of equal proportion, symmetrical intersection, and how they represent diverse epistemological imperatives under review. The second relational dynamic is iteration, and concerns how the three circles mediate power relationships between each other, and ultimately, how they collectively orientate towards the research problem.

Starting with the first dynamic, and in discussing how the conceptual framework is interpreted, it has been observed that commentators often request that the circle that is aligned with their worldview or disciplinary epistemology, be increased in size. On the one hand, this is arguably a natural tendency, and practically in-line with an individual's accrued knowledge. Yet, on the other hand, this is a political request in its own right, and introduces a premature power dynamic into how the conceptual framework should approach the research problem. As such, all circles are shown as uniform and intersections as symmetrical, to allow for power dynamics that are not prescribed, but rather explored. This point will be further discussed in Section 1.4.1 relative to how a transdisciplinary research strategy has been employed throughout the thesis to counter epistemological assumptions, bias, and monodisciplinary blind-spots.

The conceptual framework's second relational dynamic, iteration, although not illustrated in Figure 1.1, is developed in the thesis. These chapters will introduce how the conceptual framework can be read in a clockwise direction, iterating from IKS, to design, to cosmopolitanism, and back to IKS in order to repeat the sequence. In other words, how (1) IKS as an authentic context and resource can inform design, how (2) design objects, processes and philosophy can then enable cosmopolitanism, and how (3) cosmopolitanism as an experimental form of normative organisation can then influence IKS. The rationale for this clockwise direction is introduced in Chapter 2 and unpacked in Chapter 3.

Lastly, with an appreciation for the composition of, and interaction within, the conceptual framework, it is of importance to the emergent nature of the research to distinguish between conceptual, analytical, and theoretical frameworks. The difference can be ambiguous, particularly for design, where the term "conceptual" is often associated with a productive or output driven quality. Yet, for other disciplines, the convention and usage of frameworks is equally ambiguous. For example, writing from a qualitative and multidisciplinary perspective, Jabareen (2009, p. 51) suggests that the "current usage of the terms conceptual framework and theoretical framework are vague and imprecise", and writing from a political studies perspective, Stanley (2012, pp. 475-476) suggests that the "distinction between what exactly constitutes the difference between a theory and an analytical framework is, at best, fuzzy".

In an attempt to ascertain usage, both authors continue to define types of frameworks, which in turn brings greater clarity to how arguments throughout the design and democracy thesis are constructed and connected. Jabareen states that a conceptual framework possesses "ontological, epistemological, and methodological assumptions, and each concept within a conceptual framework plays an ontological or epistemological role". Stanley states that an analytical framework aims to "generate or construct explanations of

theories”, and that the “purpose of ‘theory’, in the classical scientific sense, is to best reflect reality”. In other words, a conceptual framework is not attempting to *prove-a-theory*, but rather, to provide a relational mechanism to *develop-a-theory*.

1.4 INDICATION OF RESEARCH DESIGN AND METHODOLOGY

This section provides an introduction to the research design and methodology used for the design and democracy research. From a meta-level perspective, the topic is firstly explored from multiple perspectives, and secondly, a specific area of interest explicated. The following will indicate how both the literature review and fieldwork follow this approach using a transdisciplinary research strategy, an abductive logic of enquiry, and a case study method.

1.4.1 TRANSDISCIPLINARY RESEARCH STRATEGY

Transdisciplinarity provides the overarching research strategy to manage the design and democracy study. It occupies a meta-position similar to a theoretical lens, but unlike such lenses that aim to guide research based on a hypothesis, transdisciplinarity functions as a reflective device to facilitate diverse epistemological and ontological imperatives in an impartial manner. Specifically, it will help position and develop theory, which being derived from the Greek *theōros* and translation “spectator” (Oxford, 2010b), transdisciplinarity provides the mechanism to develop unforeseen data, which when obtained and critically observed, can underpin new theory. The following will argue this claim, and how it is well suited to manage the relationships between design theory, democratic theory, and a South African context.

Transdisciplinarity is a compound word derived from the Latin *trans* and *discipline*, where the former is translated as “across” and the latter as “instruction, knowledge” (Oxford, 2010b). It is perhaps surprising that formal concepts of transdisciplinarity are suggested to have emerged as recently as the 1970s’ (Jahn, 2008, p. 1; Ramadier, 2004, p. 426). Transdisciplinary does not necessarily imply the emergence of new disciplines, but rather that the “new regime of knowledge production rests on flexible interactivity of diverse fragments of knowledge for solving local problems” (Maasen and Lieven, 2006, p. 11). If this point is read with the research problem in mind, transdisciplinarity is looking to mediate design knowledge and democracy knowledge in a manner appropriate to South Africa.

Table 1.2 below provides an overview of modes of disciplinary collaboration and how the transdisciplinary research strategy is employed. Two key authors are referenced in the table: the historic definition is sourced from Jantsch (1970, pp. 410-411) and the relatively

contemporary definition from Max-Neef (2005, pp. 6-9). The former provides insight into how disciplinary collaboration and transdisciplinarity were initially conceived, and the latter provides insight on the contemporary approaches, which have been used in this thesis.

Table 1.2: Modes of disciplinary collaboration

	Historic definition	Contemporary definition
Disciplinary	"Specialization in isolation"	"Is about mono-discipline, which represents specialization in isolation"
Multidisciplinarity	"Variety of disciplines, offered simultaneously, but without making explicit possible relationships"	"More than one area of knowledge, without making any connections between them"
Pluridisciplinarity	"Juxtaposition of various disciplines, usually at the same hierarchical level"	"Cooperation between disciplines, without coordination"
Crossdisciplinarity	"Axiomatics of one discipline are imposed upon other disciplines at the same hierarchical level"	Not mentioned.
Interdisciplinarity	"Common axiomatics for a group of related disciplines is defined at the next higher hierarchical level"	"Coordination of a lower level from a higher one"
Transdisciplinarity	"Coordination of all disciplines and interdisciplines in the education/innovation system on the basis of a generalized axiomatics"	"The result of a coordination between all hierarchical levels"

The table notes an increase in collaboration from monodisciplinary on the top row, to complex and coordinated transdisciplinarity on the bottom row. From an epistemological imperative perspective, it is tempting to view collaboration as increasingly overlapping from top to bottom. However, Ramadier (2004, p. 425) notes that "non-overlapping" areas should be explored in transdisciplinarity, and that it "is not the unity but the coherence of knowledge" that is important. Krohn (2008, p. 371) provides additional insight when he suggests that "transdisciplinary research projects cannot be positioned precisely" and that "epistemological ambivalence seems to be an essential feature". In other words, this study is interested in areas of design and democracy that are considered conflicting.

When reviewing the table, three transdisciplinary components should be kept in mind: complexity, levels of reality, and the logic of the included third. Complexity refers to several levels of reality, which Nicolescu (2014, pp. 195-190), citing an earlier work, links to the notion of universal independence and describes as when "everything is dependent on everything else, everything is connected, nothing is separate". Rather than being simply a paradox, he argues that an "incompleteness of levels of reality" and in turn an "arbitrary elimination of the hidden third", results in a manifestation of disciplinary boundaries. Plainly stated, disciplinarity originates from ignoring abstract complexity. This notion of a third space²¹ is developed by Ramadier (2004, p. 427) when he describes transdisciplinarity as embodying "the idea that the whole is more than the sum of its parts" and where a "third term can emerge, which is the result of two interacting contradictory

²¹ Of interest, the concept of a third space is similar to Gestalt psychology or theory, a German term in which "the whole of anything is greater than its parts", and of particular interest, it is suggested to have "no exact equivalent in English" (Britannica Academic, 2016).

terms". Importantly, he states that this "third term is not a synthesis of the first two" but a "complementary element".

Allowing this third space to emerge for design and democracy research arguably requires the reader to adopt a temporary suspension of dis/belief. As the introduction to this chapter intimated, democracy is a highly emotional and personal topic, and a form of diplomatic objectivity is prerequisite for critical reading of this thesis. The transdisciplinary literature alludes to this point in various manners. For example, Giri (2002, p. 103) states that "transdisciplinary participation requires overcoming our disciplinary chauvinism", Hoffmann-Riem et al. (2008, p. 12) mentions "transdisciplinary cooperation", and perhaps in summary, Jahn (2008, p. 9) suggests that transdisciplinary research "assumes willingness to learn to a high degree, as well as being a deeply personal process".

Of importance to depth of enquiry, transdisciplinarity does not imply that research is abstracted or theoretical. Rather, it introduces an obligation for empirical data to influence and develop theoretical propositions, which can be stated as "coordination between all hierarchical levels" (Max-Neef, 2005, p. 7) or the need to engage with real world problems (Doucet and Janssens, 2011, p. vi; Maasen and Lieven, 2006, p. 403; Wiek and Walter, 2009, p. 362). For the thesis, multi-level coordination and real word application is evident in design and democracy being researched as linkages between objects, processes and philosophy.

1.4.2 PHILOSOPHICAL REASONING AND ABDUCTIVE LOGIC OF ENQUIRY

Research into design and democracy is sensitive to the choice of philosophical reasoning and logic of enquiry. Philosophical reasoning can be geographically contested, as is evident in analytic and continental approaches to philosophy. For example, in reviewing analytic versus continental literature, Vrahimis' (2011, p. 634) notes how certain authors attempt "to mediate between what they call 'essentialism' regarding the existence of either side on the one hand, and on the other hand a trend towards an overt 'deflationism' against essentialist claims". This territorial mode of arguing is emphasised as a geographic imperative by Staiti (2013, p. 793) when he states that the "label *analytic* has been almost officially replaced by the label *Anglo-American*".

The idea that philosophical reasoning is disputed and geographically influenced is of particular importance to this study in a South African context. Due to centuries of colonisation, the thesis will argue that the country has traces of both analytic and continental philosophy; and that a unique form of African philosophical reasoning, as evident in IKS, has been largely overlooked. It is IKS as a philosophical reasoning that will

be argued as key to addressing the research problem, and abduction as the underpinning logic of enquiry, key to supporting this argument.

The choice of abduction is partially motivated by the use of a transdisciplinarity²² and that the two conventional logics of enquiry, induction and deduction, are not ideally suited to the design and democracy study. Induction is concerned with “applying inference from specific observations” and deduction is focused on “hypothesis from theories and models” (Mouton, 2001, p. 118). The thesis will argue that both design and democracy are abstract and dynamic phenomena, and in turn problematic to observe. It will also argue that IKS is emergent within academic discourse and in turn, does not have the established theory required of deduction. This is not to suggest that abduction is a new logic of enquiry.

Fischer (2001, p. 365) traces abduction to Aristotle (384-322 BCE) and Charles Sanders Peirce (1839-1914). It is Peirce who established a path to the current use of abduction when “reviewing methods of reasoning” and who “identified another step in the process through which ideas and theories are engendered” (Gambarato, 2013, p. 425). This is summarised by Potter (2006, p. 86) who states that abduction “involves constructing new theory rather than testing it, by a process of identifying naturally occurring surprises or deliberately creating them”. It is abduction’s allowance for inference and the development of new theory based on inconsistent, paradoxical, and random phenomena²³ which when researched further, may contain unforeseen and valuable insight to the design and democracy research.

In a reviewing design literature, Dong et al. (2015, p. 39) suggest that, in “contrast to deductive and inductive reasoning, design researchers generally promote abductive logic as the form of logical reasoning that is the lifeblood of creative design”. Such commonality should not be misconstrued as pre-emptive or partisan, but rather indicative of the problem being researched. For example, Gambarato (2013, p. 428) suggests that abduction is the “driving force behind creation and the way of producing new ideas”, and Fischer (2001, p. 368) argues that if “neither induction nor deduction enlarge our knowledge of the world, then abduction as the only knowledge-generating mechanism must needs become the central focus of epistemological discussion”. For the design and democracy research, an abductive logic of enquiry works with transdisciplinarity to

²² Magnani (2005, pp. 263-282) suggests that abduction is “related to the dynamics of information and its systematic embodiment in segments of various types of knowledge” and that an “interdisciplinary character of abduction is central”. Fischer (2001, p. 369) suggests that abduction can be “conceived of as a principle that allows us to reconstruct how conceptual order is achieved” and it “enables us to bridge the traditional gap between the arts and the sciences”.

²³ For example, Gambarato (2013, p. 425) suggests that abduction does not “follow a logical formula”; Magnani (2005, p. 270) notes that it is the “making of a preliminary guess”; and Timmermans and Tavory (2012, p. 171) state that abduction is the most “conjectural of the three logics”.

generate new knowledge across the conceptual framework - design, IKS, and cosmopolitanism.

Yet, it is of importance to academic rigour to highlight that abduction's generative quality often requires buttressing from other logics of enquiry. For example, Magnani (2005, p. 270) suggests that, from a medical perspective, "abduction is the making of a preliminary guess that introduces a set of plausible diagnostic hypotheses, followed by deduction to explore their consequences, and by induction to test them with available patient data". Another example is from Råholm (2010, pp. 39-40) who provides an alternative arrangement, and suggests that induction "mediates between abduction and deduction by testing the 'must be' against 'what is'". The thesis will employ a relational sequence typical of Råholm – abduction to induction to deduction – however, the role of deduction in design and democracy studies will be argued to be highly contested, and to some degree, preferably avoided.

1.4.3 ETHNOGRAPHIC CASE STUDY METHOD

An ethnographic case study method is used to obtain empirical data pertinent to addressing the research problem. The case study itself is an urban street in Cape Town, South Africa and provides a delineated environment with which to explore and experiment with design and democracy. Five sub-units who occupy and influence the case study, and range from public administration to entertainment, are researched using qualitative and quantitative methods. The mixed-method empirical evidence that is obtained from the ethnographic case study is used to address the research problem of how design should contribute to enable South African democracy.

1.5 OUTLINE OF REMAINDER OF THESIS

The discussion to this point has introduced the real-life problem and how a transdisciplinary research strategy, abductive logic of enquiry, and ethnographic research design and methodology will address the research problem. The following indicates the main topics discussed in each chapter and how the thesis will unfold.

1.5.1 CHAPTER 2: MAPPING THE DESIGN AND DEMOCRACY LANDSCAPE

The literature review is divided into two phases. The first is in Chapter 2 and which is an exploratory and broad background discussion of design and democracy literature. It provides a meta-level view of the topic and not a specific argument, and is organised by how designed objects, design processes, and design philosophy influence democracy. The primary research question, of how should design contribute to enable South African

democracy, is predominantly addressed in this chapter. The summary argues that two key concepts are evident in this literature, which require further literature to address the research question. The first concept is Indigenous Knowledge Systems (IKS) as an authentic context, and the second is cosmopolitan theory as normative organisation.

1.5.2 CHAPTER 3: FOCUSING WITH IKS AND COSMOPOLITANISM

The second literature review is discussed in Chapter 3, and is an explicatory and focused unpacking of the two key concepts that are identified in Chapter 2. The two sub-questions will be predominantly addressed in this chapter, and it will be summarised with an argument for what additional information is required to further answer them.

1.5.3 CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

The research design and methodology is discussed in Chapter 4 and outlines how new data will be obtained with which to address the research problem and answer the research questions. The chapter indicates why an ethnographic case study method has been selected and how transdisciplinarity, abduction, and an experiment contribute to advancing design and democracy theory. It also argues that depth and transparency of collating and analysing empirical data are key to this advancement.

1.5.4 CHAPTER 5: INTERVIEWS AND KEY OBSERVATIONS

Similar to the literature review, the fieldwork is divided into two phases. The results of the first phase are presented and discussed in Chapter 5, which is concerned with data obtained from key informants representative of each case study sub-unit. These participants have been selected based on their authority or ability to influence the case study delineation, and it is their attitudes and beliefs towards design, participation, and IKS that are analysed in detail. The chapter concludes by discussing anomalies and inconsistencies found in the key informants' attitudes. Where applicable, these attitudes are grouped into key observations, with an indication of what additional fieldwork is required to clarify or assess them.

1.5.5 CHAPTER 6: EXPERIMENT AND KEY CLAIMS

Chapter 6 presents and discusses the second phase of fieldwork, and is concerned with advancing one key observation from the first phase of fieldwork. Although the research design and methodology for this phase follow academic convention, and will have been outlined in Chapter 4, in practice, it was only formed after analysis of the first phase of fieldwork and identification of key observations. The chapter is concerned with measuring how a design method informed by IKS, is able to facilitate dynamic participation in an

urban and diverse community. The chapter concludes with an interpretation of findings into key claims.

1.5.6 CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

Chapter 7 reviews the salient points that emerged throughout the thesis, interprets the results of the fieldwork back to the literature review, and concludes the significance of the results relative to the research problem and questions. Research gaps and deviations are discussed, and policy and other recommendations for future design and democracy research stipulated.

CHAPTER 2 MAPPING THE DESIGN AND DEMOCRACY LANDSCAPE

You do not teach the paths of the forest to an old gorilla.

Believed to be a Congolese proverb, origination date, and author unknown
Sourced from Manzo and Manzo (1990, p. 329)

In the Congolese proverb above, the forest is an allusion to this background design and democracy literature review. The paths are those arguments that have been established over centuries by the authoritative source, the silverback mountain gorilla. As true custodians of the forest, they require no teaching, and it is rather for those wishing to venture into their domain, that a critical awareness of established paths and movements is required. Yet, knowledge of broader dynamics at play in the forest is also required, for to remain preoccupied with authority, is to overlook new pathways and rediscover forgotten ones. This chapter cites reputed academics whose arguments have, in many instances, endured centuries. However, it also makes a specific line of enquiry into citing contemporary authors who are exploring design and democracy in unprecedented ways.

The chapter explores and discusses existing design and democracy literature, and is organised into four sections: the first, second, and third sections respectively discuss the literature under categories of how designed objects, design processes, and design philosophy enable democracy. The fourth section is a summary of the chapter. Figure 2.1 below indicates how the first three sections are related to the conceptual framework.

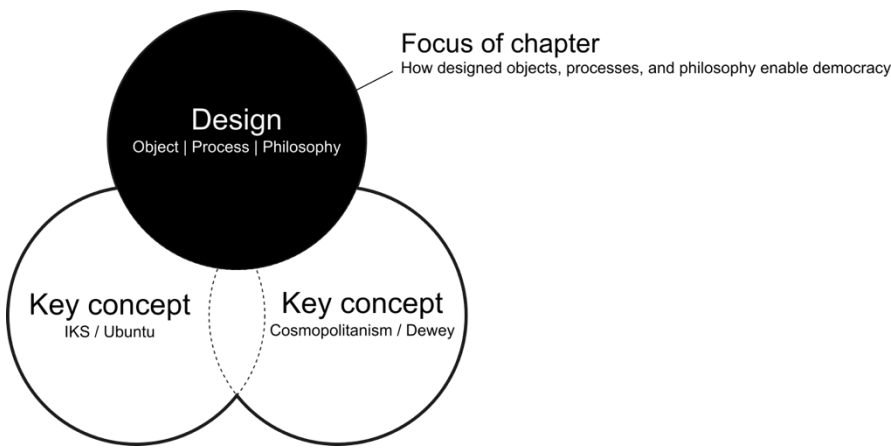


Figure 2.1: How designed objects, processes, and philosophy enable democracy

The choice of using levels of abstraction and three categories is motivated by transdisciplinarity and its preoccupation with coordinating all levels of abstraction; and by abduction and how it develops new theory based on identifying anomalies. Reviewing multiple levels of abstraction allows for a meta-level view of the literature to be

appreciated and broader inconsistencies identified. This is by no means a new claim, and is evident in the design literature.

For example, Friedman (2003, pp. 516-517) points to levels of abstraction, and citing Whetten's (1989) approach to theoretical contribution, notes that all theory has four elements, which can be expressed as follows: (1) what is the "phenomena under study", (2) how is it concerned with "causality", (3) why is it an explanation for the "theoretical glue" at work, and (4) who-where-when is concerned with substantiation and setting limits on "uses and application". A second example is from Andruchow (2010, p. 6) and his research of how definitions can strengthen design theory and, citing Govier's (2005) approach to argument, reveals levels of abstraction where (1) an ostensive definition is used to "describe a thing that can be pointed to", (2) a lexical definition attempts to "list and describe all common usages", and (3) a stipulative definition "states what a term ought to mean". A third example is Love (2000, pp. 305-307) who proposes a meta-theoretical structure for design theory. He clusters nine layers of design abstraction into three categories: (1) design related to objects at the lowest level, (2) design related to processes at the medium level, and (3) design related to philosophical matters at the highest level.

Read collectively, Friedman (2003), Andruchow (2010), and Love (2000) are all inclined to employ a literal to abstract dimension to manage and categorise design theory. Although each could be used to structure this chapter's exploratory literature review, Love's taxonomy is considered the most applicable to notions of design and democracy. Although it categorises "differing design theories and concepts into their relevant contributions at each of the different levels of abstraction", it also makes allowances for "hierarchical dependence between levels" (Love, 2000, p. 307). In doing so, it is well aligned with the transdisciplinary approach that has been argued to be key to design and democracy research.

The chapter will argue that designed objects, processes, and philosophy both enable and hinder democracy. It will demonstrate that designed objects do so in a limited and monodisciplinary manner; that design processes do so in the majority, are well represented in the literature, and are a primary resource for the research problem; that design philosophy has a precarious relationship to democracy, particularly when expressed as collective agency. The chapter concludes with a critical review of the literature relative to the research problem and research questions. It will argue that although the literature has broadly explored and categorised how design can enable democracy, in order for a South African context to be appropriately understood, an additional and focused literature review is required on two key concepts. The first

concerns Indigenous Knowledge Systems (IKS), and the second, cosmopolitanism - both will be unpacked in Chapter 3. The following section starts the explorative and broad review of design and democracy literature, using the designed objects category.

2.1 DESIGN AND DEMOCRACY RELATED TO OBJECTS

This section is concerned with how designed objects can enable democracy. Love (2000, p. 305) describes this object category as being concerned with the description and behaviour of elements, and it occupies the lowest level of abstraction of his three-levelled hierarchy. As a category, it is concerned with literal, tangible, and mostly intuitive use of design objects. The following will argue that although certain designed objects may enable democracy, they do so in an incomplete manner.

A suitable example of an object that can enable democracy, in the form of the power of the people and collective agency, is the voting ballot. The term vote is derived from the Latin *votum* and translates as “a vow, wish” (Oxford, 2010b), and when represented in a ballot format, it is used to quantify democracy through elections and referendums. Focusing on the ballot for this section is motivated by the literature review and the variety of papers discussing the infamous butterfly-ballot design. This object was designed by an election official for the 2000 United States presidential elections, and resulted in the electorate claiming they had misguidedly voted for the incorrect candidate. Lausen (2007, p. 6) discusses this complication in her book “Design for Democracy: Ballot + Election Design”. Using the Figure 2.2 below, she notes that many constituents had “voted for Pat Buchanan when they intended to vote for Al Gore, having assumed that the second punch hole aligned with the second candidate on the left-hand page”.

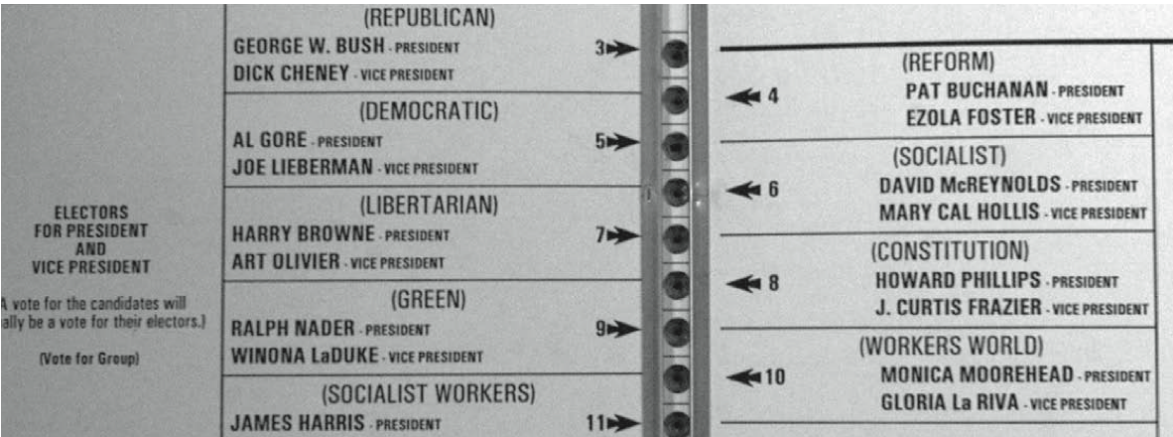


Figure 2.2: The butterfly ballot

Lausen (2007, pp. 4-45) states that “government creates trust almost exclusively through communication - using words and images to convey meanings” and after critiquing the ballot in question, details numerous design objects that aim to reduce ambiguity and

manage tolerance for error in future elections. This is all under a uniform national system, which includes a new ballot, election way-finding signage, and even poll-worker instrumentation. Gable et al. (2016, p. 4) also review the butterfly-ballot design, and approach it from an ergonomic and human factors perspective. They propose a web-based alternative that functions as a “one-stop shop” to facilitate, for example, a practice ballot, voting progress meters, and ability for the voter to reverse actions.

A review of the butterfly-ballot from non-design-centric literature employs a different mode of argument. For example, Brady et al. (2001, pp. 62-68) review the election from a legal and judicial perspective. They suggest that it was a “case where voters' voices were silenced by inexcusable and preventable errors in ballot design” and that the term butterfly ballot is a “catchphrase for bad design”. Of interest, they include a courthouse security guard’s suggestion that the “butterfly ballot had been intentionally designed to harm blacks in particular” however, they disagree with the statement. LaFratta and Lake (2001, p. 146) review the ballot design from an elderly voter perspective. They note the irony in how “officials caused the original one page list of candidates to spill over onto the right side of the page” and in turn “created the confusion that the large print was supposed to prevent”. Existing legislation that should have informed the design is noted, such as the Voting Accessibility for the Elderly and Handicapped Act (VAEHA) and the Americans with Disabilities Act (ADA). They also point out the systemic issues of running elections being delegated to individual counties, which naturally results in numerous voting systems being employed.

Reflecting on the above arguments, two broad approaches can be extrapolated regarding how design, as related to objects, is believed to have influenced the 2000 United States presidential elections or notions of democracy. The first is solutionism, which applies to the authors arguing from a design perspective, namely Lausen (2007) and Gable et al. (2016). For these authors, the failed butterfly-ballot necessitates an overarching and consistent design intervention. Although the solutions have merit, design is positioned within a system of assumed privilege, and not, for example, within a contested and politicised negotiation between states and officials. It is interesting to note that Ommen (2010, p. 94) alludes to this point when reviewing Lausen’s book, and comments that it “has trouble imagining election processes outside an idealized account of participatory democracy”. Another review by Barnhurst and Henke (2008, p. 590) question the book’s imperative, and suggest that the “assumptions underlying the project are functionalist and enhance the occupational status of designers. Design for Democracy makes voting a design problem and proposes a solution that professionals gain control over images”.

The second yet similar mode of argument is essentialism, which is evident in how the non-design-affiliated authors approach the butterfly-ballot design. For these authors, Brady et al. (2001) and LaFratta and Lake (2001), the butterfly-ballot design was almost a determined act of election sabotage, which did not comply with established guidelines. The ballot is simply part of an election kit or collateral, which can be selected to suit a requirement. A designed object is positioned as a resolved and static item, and not, for example, subject to broader technological trajectories and evolving user experiences. This approach is indicative of Woodhouse and Patton's (2004, p. 4) "technological neutrality" which they suggest "maintains that a given technology has no systematic effects on society" and "individuals are perceived as ultimately responsible, for better or worse, because technologies are merely tools people use for their own ends".

Distilling the authors' arguments in this manner is not an attempt to discredit their research, but rather to indicate how discussing notions of design and democracy, within Love's design as object abstraction, is limiting. The butterfly-ballot may have influenced the election outcomes, however, to remain focused on the object tends to reinforce monodisciplinary idealism. Design leaning authors treat democracy as a constant in order to argue for a solution; and the non-design authors, treat design as static in order to argue for a particular social imperative. Both approaches simply constrain the depth of enquiry.

DiSalvo (2010, p. 2) articulates this point when he states that "most 'design for democracy' projects fall within the realm of politics, with a focus on improving structures and mechanisms that enable governing" and continues to note that although "such projects are important, they are not political in an agonistic sense and they do not represent the range of possible thought and action available to design within the democratic endeavour". The following section, therefore, raises the level of abstraction, and unpacks design and democracy as a process, and in doing so, the complex socio-technical dynamics underpinning delegation, collective agency, and power of the people can be addressed.

2.2 DESIGN AND DEMOCRACY RELATED TO PROCESS

This section of the literature review is concerned with how design processes can enable democracy. Love (2000, pp. 305-306) describes this category as being concerned with mechanisms of choice, methods, design process structures, and theories about internal processes of designers and collaboration. It occupies the middle of his hierarchy, and unlike the object category, it is largely comprised obscured knowledge, which may not be revealed or understood by the end user of the design.

Due to the amount of literature on how design processes enable democracy, this category is organized into four sub-sections. The first concerns the built environment and how historic and mature design disciplines influence democracy; the second discusses the rise of contemporary and covert design methodologies that impact on democracy; the third focuses on the individual and how design methods are used to interface with, or substitute for the lack of, democracy; the fourth sub-section concerns design methodologies that incubate group and cultural dynamics. The section will conclude by arguing that design processes that enable democracy are not only well represented in the literature, but are also suited to addressing the research problem.

2.2.1 HISTORICISM AND THE DESIGNED ENVIRONMENT

This sub-section will unpack how the designed environment, as related to process, can enable notions of democracy. For the purpose of this sub-section, the designed environment is delineated to large urban infrastructures such as buildings, bridges, and roads. These artefacts are common to most cities around the world, and have been designed using historic and regulated professions such as *architecture*²⁴ and *engineering*²⁵. Similar to the discussion of design objects, examples will also be used that either failed to incubate democracy or attempted to subvert it. The sub-section will demonstrate that the design of the built environment is not only established in democracy literature, but also in general human activity, and therefore provides a suitable starting point to appreciate the agency of design processes.

The design process is preoccupied with using new material innovations and technical trajectories to influence social patterns. Minuchin's (2013, pp. 239-246) research into the material ontologies of concrete during the mid-twentieth century develops this point. He reveals that although the material was celebrated as an "engineering advancement that would enable architecture", it was also considered to embody "social and political emancipatory potential" and was "involved in expanding the presence and circulation of life in modern metropolises". Of particular interest, he suggests that "materials expand our technical and discursive capacity to problematize" and provide a means to "visually manipulate, demarcate and articulate notions such as distance, intimacy or exclusion". In other words, it is not just the resultant artefact that may be political, but also the ease at which a material or process can afford designer agency.

²⁴ Brown (2012, p. 457) notes that although the "word 'architecture' goes back to the Greek, 'arkhitekton', meaning 'chief builder', primarily a mason or carpenter"; in a contemporary environment, an architect is closer associated with for example the "planning and design of buildings", "meeting the clients requirements", and "assessment of design quality".

²⁵ Milburn (2016, pp. 563-564) reviews definitions of the term engineer and reveals how it has numerous associations, such as with the "military", "war", and "specialized knowledge". He notes that, prior to 1818, there was no professional organisation for engineers, which if juxtaposed with contemporary design practice, formalised designer responsibility and liability may be forthcoming.

Winner's (1980, pp. 121-124) paper titled "Do Artifacts Have Politics?" provides an appropriate introduction to how the design process and material physicality influences democracy. He reviews large-scale sociotechnical systems and advocates for "certain technologies as political phenomena in their own right". His paper is particularly helpful in that, apart from the premise, it has prompted critical responses from a variety of disciplines²⁶. It can be considered as a founding contribution to the transdisciplinary design and democracy topic because the responses tend to focus on his key argument concerning how public environments are designed with the intent of prejudicing affordances.

His primary argument is that the New York and Long Island bridges were intentionally designed to enforce a racial bias. The evidence being that the overpass' clearance was specified by Robert Moses, a master builder from the 1920s to the 1970s, to only allow access to motor vehicles and not to busses. Due to the latter being used predominantly by racial minorities and low-income groups, the design effectively blocked their right of passage. Winner focuses on these implications by suggesting that they were "deliberately designed to achieve a particular social effect" and to "limit access of racial minorities and low-income groups to Jones Beach, Moses' widely acclaimed public park".

Although Winner arguably exaggerates designer autonomy²⁷, his argument is aligned with contemporary actant agency debates. For example, Fallan (2010, p. 73) suggests that because "certain tasks have been delegated to them", actant performance, or the lack thereof, is equitable to humans. Another example is Gambarato (2013, p. 430) who suggests that the "task of the designer is to make objects speak for themselves". Although it is unclear if Moses intentionally designed with segregation in mind, or if he was required to follow broader transport norms during this period, such as segregated bus depots²⁸, the resultant ability for a large-scale sociotechnical system to delegate is of key importance. Large urban infrastructure is often designed for long-term usage, and as such, may outlive the designer. The result is that discredited design methods and overturned institutionalised prejudices may remain in an artefactual form, and in turn be incompatible with subsequent norms or politics.

²⁶ See for example Joerges' (1999) paper titled "Do Politics Have Artefacts?", Latour's (2005) article titled "Which politics for which artifacts?", and Kingston's (2011) "Do Ancient Artifacts Have Politics?". In all instances, the key argument of each paper is expressed in the title.

²⁷ Exaggeration of designer autonomy is also mentioned by Woodhouse and Patton (2004, p. 2) who, when reviewing design by society literature, note that it often erroneously "comes across as if designer (and client) were entirely free to choose how a product or building or artifact will be shaped, and as if their deliberate efforts constitute pretty much the whole story of design".

²⁸ Of interest, it was towards the end of Moses career, that such inequality was arguably being dismantled, for example in the 1961 Freedom Rides that campaigned from Virginia to Texas to desegregated bus depots (McWhorter, 2008, p. 66)

Hebbert (2005, pp. 41-48) discusses such a dynamic with contemporary street design processes and twentieth-century urbanism. Similar to Winner, his paper is concerned with how design intentionally limited human movement. However, unlike Winner, he demonstrates how design methods that intended to create a “philosophy of segregation” were initially desired. Hebbert traces the growth of urbanism as founded on a “subconscious anti-urban imagery of the city as a diseased thing” and a desire for “obliteration of the urban street”. This promoted the use of modernist²⁹ design methodologies which aimed to distinguish between “movement and access”, use “hygienist principles of sunlight and oxygen”, and “liberate the pedestrian”. However, the well-intended designed “megastructures in which pedestrians could rediscover the freedom of the city on artificial ground levels decked over moving traffic”, resulted in the “experience of life in these physically isolated environments” being conceptualised as “social exclusion”. Hebbert’s paper is an argument against the use of design to contrive and compartmentalise the human experience, yet it also demonstrates how road design can be employed to remedy architectural failures and “weave” such modernist experiments “back into the urban tissue”.

In a South African context, urbanism has layered political implications. Turok and Borel-Saladin (2014, pp. 687-688) discuss the sustainability of current South African urbanisation over a decade. They suggest that “population trends across the cities have tended to coincide with employment growth patterns”, the “provision of urban infrastructure has also kept pace with population growth”, the “building of formal housing has failed to keep up with household growth”, and to accommodate this shortfall, informal housing has increased or diversified. The World Urbanization Prospect (United Nations, 2014) helps interpret the long-term sustainability of these findings. It indicates that in the mid-eighties, South Africa comprised of a 50% urban and 50% rural population, and that by 2050, the urban proportion is projected to have increased to almost 80%, and in turn, the rural population to 20%. Although the methodology used to predict these percentages is questioned³⁰, it does emphasise how informality is related to city development. It is arguable that, similarly to migrant labour under Apartheid, many South Africans contribute to the building of cities in a manner that they cannot fully occupy.

²⁹ Modernism broadly understood as a “creative and productive force” and uses “technology as progress and sees in it the cure to all ills: an opportunity to start anew and shape the world of the future at will”; and of importance to this research, “non-Western nations and groups have developed their own forms of modernism, which do not always easily fit Western political-economic categories” (González-Ruibal, 2013, pp. 1-13).

³⁰ Borel-Saladin (2017, p. 148) interrogates this report and its projections, and suggests that “population estimates for countries and cities in sub-Saharan Africa have been particularly inaccurate”, partly due to the “poor standard and availability of their census data”, and “differing definitions of urban areas and populations”.

Chaskin and Joseph (2012, pp. 1-13) discuss social exclusion under the theme of “deconcentrating poverty”, and review how the design is implicated in “dispersing poor people to less-poor communities or attracting higher-income residents to low-income neighborhoods”. They build on the work of Henri Lefebvre (1996) and his notion of the “right to the city” to explore mixed income developments. Reflecting on what counts as public, they state “part of this is a function of design, which for the most part privileges private (and privately controlled) space over common areas”. They motivate this with examples such as individual entrances, private balconies, and the demarcation and monitoring of common spaces. The value of their paper is not in how design is complicit in these examples, but rather in how the design process is represented. There is no mention of a designer or architect, but rather the “design choices made by developers”. In this regard, the authors position the designer as functioning within an object abstraction, with the higher-level process of abstraction, being a developer mandate.

The built environment is not only concerned with functionality or directing movement, but also with evidencing the enactment of rights. Tunstall (2007, p. 5) reviews this role in her paper on design and trust within the context of government. Using Michel Foucault’s³¹ concept of governmentality, she notes how instances of design provide the “regimes of practice within government. They are the formation and implementation of the thought behind the practices of government” and as such, indicative of how “design mediates the trust people hold in the practices of government by making them tangible”. In this fashion, design’s physicality functions as a commodification of service delivery, and as evidence for the populace to ascertain government efficacy. It is an important consideration when reviewing the design process and choice of methodology, for example, it may have been selected to amplify prominence or, as in the case of demolition, disproportionate action.

This sub-section demonstrated how the process of designing the built environment impacts notions of democracy. Actants such as buildings, bridges, and roads, as well as actors such as designers, government officials, and developers, all contribute to the restriction or enablement of free movement. It demonstrated that even everyday and common objects have a political imperative determined by complex and evolving design processes. The physicality of the examples used, indicate how a design process can influence behaviour and norms, and also provide a physical representation with which to direct and focus critical enquiry. The following sub-section shifts from reviewing historic processes that enable democracy to contemporary processes.

³¹ Foucault’s lecture on the concept of governmentality follows his interpretation of Niccolò Machiavelli’s (1469–1527) text “The Prince”. In particular, Foucault suggests that “old” government was based on his writings, and the “new art of government” that was formed from the sixteenth to eighteenth centuries, was explicitly anti-Machiavellian, for example, it deviated from a ruler’s institutionalised sovereignty, power and wealth (Korvela, 2012, pp. 74-76).

2.2.2 CONTEMPORARY AND COVERT DESIGN METHODOLOGIES

The following discusses the use of discreet design processes that are increasingly enabling notions of democracy. The built environment will still be referenced, however, it is not the large-scale and perceptible infrastructure that is of interest, but rather the small-scale, distributed and covert artefacts. Design processes such as *industrial design*³², *graphic design*³³, *service design*³⁴, and *system design*³⁵ will be discussed. The sub-section will argue that democracy is increasingly being enabled and subverted by undetectable design processes.

Kaya (2010, pp. 2-5) provides insight on how distributed small-scale artefacts are aligned with democracy in the twentieth century. She focuses on industrial design and how it responds to “complex social problems” in a manner that is in “symbiosis or survive in parallel with the present ‘consumerist’ culture of the society”. Kaya argues that the growth of the “design as a tool of social critique and engagement” was established by three main sources. The first is Dewey’s (1859-1952)³⁶ concept of *creative democracy*, which she interprets as “immanent in mundane everyday interactions instead of institutional politics” which includes “designed artefacts as part of the mundane realm”. The second is Papanek’s (1923-1998)³⁷ book titled “Design For the Real World” which she notes as “theoretically challenging the ethics of design practice” and provided “concrete examples of how ideals of democracy can inform design practice”. The third contributing factor is the “discovery of the local development literature by design researchers in the 2000’s”.

Kaya (2010, pp. 2-4) develops the growth of industrial design and democracy with numerous examples, and notes how mass-produced and electronic artefacts, enabled by the second and third Industrial Revolutions³⁸, allowed affordances to be distributed more widely and to address social segregation. For example, she notes a ten-dollar television,

³² The International Council of Societies of Industrial Design (ICSID, n.d.) defines industrial design as a “strategic problem-solving process that drives innovation, builds business success and leads to a better quality of life through innovative products, systems, services and experiences”.

³³ The American Institute of Graphic Arts (AIGA, 2016) defines graphic design as “the art and practice of planning and projecting ideas and experiences with visual and textual content”. They include communication design under this definition.

³⁴ Service design is defined as the “shaping of service experiences so that they really work for people” and aim to “transform the experience and value of services, making them compelling to users, as well as attractive and profitable for the organisations that deliver them” (RCA, n.d.). The United Kingdom Government service design manual aims to “build services so good that people prefer to use them” (United Kingdom Government).

³⁵ The United States Department of Commerce’s (1996) National Telecommunications and Information Administration (NTIA), state system design as being “a process of defining the hardware and software architecture, components, modules, interfaces, and data for a system to satisfy specified requirements” and the “preparation of an assembly of methods, procedures, or techniques united by regulated interaction to form an organized whole”.

³⁶ John Dewey was an American philosopher who developed a form of “pragmatism which is often referred to as instrumentalism or experimentalism” and his manner of theory generation looked to “the most plausible explanations to a problematic situation by using creativity and insight” (Vo and Kelemen, 2014, pp. 1-24). He believed democracy must “constantly re-create itself” which “requires educating unique, creative individuals who constantly reconstruct society” (Garrison, 2012, p. 371).

³⁷ Victor Papanek was an Austrian-born trained architect and designer whose “work in the 1960s as a UNESCO consultant in the Technical Experts Programme went hand in hand with his practical and theoretical work” (Fineder and Geisler, 2010, p. 101).

³⁸ The first Industrial Revolution which started around 1784, realised the use of steam and mechanical production; the second revolution roughly a century later and was concerned with division of labour, electricity, and mass production; the third Industrial Revolution started around 1969, and evolved electronics, information technology (IT), and automated production (WEF, 2015).

designed by Papanek in 1969, which used methods to make it affordable enough to be distributed by United Nations Organization for Education, Science and Culture (UNESCO). She also notes a homeless vehicle designed by Krzysztof Wodiczko to be a self-contained and mobile shelter that affords sleeping, storage, and informal security. Of interest, it was conceived in response to a mayor's stigmatisation of New York's homeless population.

These examples demonstrate how industrial design occupies a unique geopolitical imperative. It focused on how mass-produced and small-scale artefacts allow affordance to be conceived and developed in one region, and distributed around the globe to another. Due to the vast quantity of artefacts that can be produced and distributed, a designer or manufacturer may never meet the end-user or be in the location of the artefact. The actors' relationship remains anonymous and effectively mediated by a conjoining actant. Nieusma and Riley (2010, p. 33) developed this dynamic relative to design, globalization, and social justice. They note how "global economic policies pressure many poor nations to adopt free-trade arrangements that expose locally created technologies to international competition" and use the example of a treadle pump that was locally produced in Africa having since been taken offshore to "take advantage of cost savings". In a similar argument, Clarke (2015, p. 54) suggests that when "anthropological methods and paradigms" are "posited strategically as an extension of industrial design practice", they can have "far-reaching political consequences in maintaining a dualist, top-down approach to development". Such examples arguably position industrial design as not only able to distribute agency, but also as a discipline that can operate within a predatory geopolitical framework.

Electronic governance, or e-Governance, is an area of democracy where the design process is increasing mediating agency: in particular, service design and user-interface design methodologies. Bannister and Connolly (2012, pp. 7-21), who dedicate an entire research paper to defining the term e-Governance, distinguish between structural and normative governance. The former is the operational side of governance concerned with process, authority, regulations, and implementation. The latter is the "set of value-related features of structural governance" such as transparency, accountability, and impartiality. They conclude that e-Governance is the employment of Information Communication Technology (ICT) in "ways that lead to genuinely different structures or processes a consequence of which may be the greater effectuation of or changes in norms and public values".

Their definition is important as it positions the use of technology within government as an enabler, and not as an overarching authority in its own right such as the Technocracy

movement of the 1930s. This movement advocated for a “non-political government of scientists and technicians” and a “single disciplined organization under one jurisdiction that would be responsible for the smooth functioning of society” (Ray, 2007, pp. 43-45). Perhaps unsurprisingly, the movement was banned in the 1940s by the very system and actors it publicly canvassed to replace. Although the details of which continue to “be withheld from public view”, there are believed to be a “few dozen Technocrats still active in Canada”.

From a system design perspective, the Technocratic focus on consolidated expertise is argued to remain. For example, Waldo (2006, pp. 7-15) discounts the “folk wisdom” of open source design as being “highly democratic undertakings” where “code is written by anyone, and there is no hierarchy”. He posits that “successful open source projects are run as semi-benign dictatorships in which a very small group of people controls all of the code”. Of importance to design competency, he also notes that there “are fewer systems that need to be designed than there were ten or twenty years ago. Industry consolidation and maturity have changed the need for system design”.

Waldo’s comments are pertinent to understanding contemporary e-Governance. Whilst the foundation layer of the technology stack may remain technically deterministic, for example, a computer operating system or the Internet’s backend server infrastructure, the top layers of the stack have become socially deterministic. For example, the ease at which a webpage can be setup or modular hardware assembled. The result is a form of technological cooperation that arguably positions e-Governance closer to public agency. For example, the Internet Party of Ukraine, which looks for an “expression of political will of citizens” and “free development of personality, rights and freedoms” (The Internet Party of Ukraine, n.d.), or the Internet Party of New Zealand, which advocates for a “connected and innovative society” and to “protect your privacy, and safeguard our independence” (The Internet Party, 2016).

Although the use of Information Communication Technology (ICT) has allowed new forms of democratic agency to be designed, it has also enabled unique forms of conflict. The Distributed Denial of Service (DDoS) is one such example, which Mansfield-Devine (2015, pp. 13-15) describes as when “a collection of thousands of ordinary users’ PCs that have been infected with malware” are used to “to route large amounts of network traffic to a single target”. The result is that the target computer is unable to process the quantity of information, and rather than delivering a service such as a website, it reports a denial of service. Mansfield-Devine traces the use of DDoS from an initial preoccupation with petty extortion, to the disruption of public service such as a police website, and ultimately how it is being used at a “geopolitical level” by “nation-state actors”. He uses the example of a

DDoS attack directed towards an organisation that helps Chinese citizens evade state censorship to support the latter claim.

Another use of design process and ICT that influences notions of democracy is SQL Injection. Chandrashekhar et al. (2011, p. 524) described SQL Injection as “a method of hacking in which malformed SQL queries are produced through unsanitized user-input”. The consequence is that confidential information stored in SQL databases, and edited with inadequately designed PHP code, for example, can be viewed and altered by anonymous actors. Provos et al. (2009, p. 49) describe the delegation of this task to bots, a form of automation script. They describe an example in which “several thousand bots were equipped with an SQL injection kit” and “containing the exploit payload” redirected “web-site users to web servers controlled by the attacker”.

Another example is from Gable (2010, pp. 60-105) who discusses how ICT, crime, and law are aggregating under the term *cyberterrorism*, which is roughly defined as the use of the “Internet to hijack computer systems, bring down the international financial system, or commit analogous terrorist actions”. He states that cyberterrorism has become one of the most “significant threats to the national and international security of the modern state” and due to some crimes being on “par with traditional terrorism, genocide, and crimes against humanity”, arguments for universal jurisdiction are being put forward. Although such legal developments aim to prevent crime, it naturally contests state sovereignty and forms of cooperation.

This sub-section demonstrated how discreet design processes are influencing notions of democracy. It revealed how small-scale actants and design methods are employed to incubate or hamper collective agency. It demonstrated that, similarly to large-scale actants, the use of globally distributed, anonymous, and voluminous small-scale actants have the capacity to incubate political sentiment. In addition, the consequence of which may remain covert and undetected by the end-user or relevant community. The following sub-section shifts this mode of inquiry to explore literature that is concerned with activism and how the design process can enable notions of democracy.

2.2.3 INDUCING CHANGE WITH DESIGN ACTIVISM

This sub-section is concerned with how the design process is employed to facilitate activism, with the end goal of inducing and developing democracy. Unlike the aforementioned sub-sections that tended to review design and democracy from an institutional perspective, this section is concerned with how the individual or small community employs design to mitigate imbalanced power dynamics and ultimately enables democracy. Key literature will be presented to develop what is implied by activism

relative to design and democracy. Following this introduction, patterns of usage relative to *fashion design*, *textile design*, *Do It Yourself (DIY)*, and forms of indigenous emancipation will be discussed. The sub-section will argue that activism is key to the design process, however within design and democracy studies, applicability to a country's political history and context requires detailed consideration.

Design's increasing association with assertion and conflict is giving rise to design activism. For example, Thorpe (2010, p. 13) states that "activism suggests that we should take action to bring about social change, or in more political terms, resist, fight, protest or struggle against the status quo for the benefit of those who are disadvantaged by it". DiSalvo (2010, p. 2) argues for an approach based on Chantal Mouffe's *agonistic pluralism*³⁹, which is a "model of democracy grounded in productive conflict or contest" and in turn realised "through all forms of social practice and material assemblages, including customs, laws, institutions, the built environment and designed products". Manzini and M'Rithaa (2016, p. 276) argue that, in order to manage societal risk, design interventions based on Wolfgang Sachs' cosmopolitan localism⁴⁰, and their concept of resilience, which is "a disruptive concept" and "one that calls for radical transformations" should be employed. Ericson and Mazé's (2011, pp. 112-130) argue that "design is an activity in which a plurality of stakeholders with competing and potentially conflicting interests may be recognized and represented".

Valocchi's (2013, pp. 169-196) research on class-inflected patterns indicates how activists can be grouped into socio-economic generalisations. He suggests that middle-class activists "define their activism as a career" and "use social networks as career builders", that working-class activists "conceive of their activism as a calling" and whose "narratives move backwards and forwards to an activism that links to and reinvents their working-class roots", and that low-income activists "make little distinction between their nonactivist and activist lives" and that "material hardship and social marginalization" shape their stories. His distinctions help reveal why activism can be positioned as populist, disruptive, or emancipative and similarly, as a passive or active exercise. The following will discuss how these class-inflected patterns of activism enable notions of democracy.

Fashion design has a unique and historic relationship with activism. Neal's (2015, p. 186) paper on the clothing of democracy provides historic factors that lead to the "T-shirt's iconic status in American culture". He traces its usage back to warfare and the T-shirt

³⁹ Mouffe's (1999, p. 754) develops agonistic pluralism as a counter to deliberative democracy, and in which she calls for the "need to acknowledge the dimension of power and antagonism and their ineradicable character".

⁴⁰ Sachs' (2010, p. 124) describes "cosmopolitan localism" as seeking to "amplify the richness of place while keeping in mind the rights of a multi-faceted world. It cherishes a particular place, yet at the same time knows about the relativity of all places".

being “originally produced as underwear and made a staple layer of the American soldier’s uniform”. Yet, following media coverage during warfare, images began to surface of the “T-shirt clad soldier” who “represented both the virility of American men and the victory of American troops”. However, Neal suggests that it was during the 1960s and 1970s that the T-shirt began to be associated with activism, where “Civil Rights workers and feminist activists used it as a billboard for their slogans and a way to support their causes”. In this manner, the t-shirt functions as both a designed object and a process with which to enable diverse political viewpoints.

Activism is also evident in how textile design is connected to passivism and anti-colonialist sentiment. The former is evident in Mentges (2015, pp. 316-317) review of Tyan’s (2013) book “British Army Uniform and the First World War: Men in Khaki”. She notes how the use of khaki “changed the image of the army” and “led to the construction of new masculinities”. In addition, she states that the “conscientious objector who, refusing to wear khaki, wore a simple blanket for attire”. Belisle (2012, p. 372) provides a similar non-conformist approach in her review of Haulman’s (2011) book titled “The Politics of Fashion in Eighteenth Century America”. She reveals how clothing was central to acts of patriotism and patriarchy, where, due to Americans being “frustrated with colonialism”, the “men rejected European styles” and it was considered a “virtue for affluent women to stay home and spin, thus proving their American authenticity and femininity”.

Although these examples are insightful, they position activism as reactionary to historical factors and state dynamics, and not as a daily phenomenon. Atkinson’s (2006, p. 3) research on Do It Yourself (DIY) modalities reveals how agency is related to class-inflected patterns of activism. He proposes four overarching facets of DIY activities that have “acted as a leveller of class” and are directly concerned with the “issue of democracy and freedom of will to act”. The first is pro-active DIY, which is motivated by “personal pleasure or financial gain”; the second is reactive DIY, which is the “agency of kits, templates or patterns and involving the assembly of predetermined components”; the third is essential DIY, which is “activities carried out as an economic necessity or because of the unavailability of professional labour”; the last is lifestyle DIY, where the “the use of one’s own labour is by choice rather than need”.

Çetin and Aryana’s (2015, pp. 2-6) work on design activism and socially responsive design points to pro-active DIY and lifestyle DIY. They suggest that in “recessionary moments designers respond to world issues through their profession” and that since 2008 the value of design activism and social responsive design is “increasing in pursuit of designers’ commercial and creative survival, as the industry evolves according to the emerging social needs”. From a design education perspective, Çetin and Aryana trace

thirteen Occident tertiary institutions that offer post-graduate programs in design activism and socially responsive design with aims such as “transformation”, “healing”, and “sustainable futures”. They distinguish between design activism and socially responsive design, suggesting the former is influenced by social, political, and economic factors, and the latter by ethical, humanitarian, and a less-favoured society.

In South Africa, with its politicised history and segregation, such formality of differentiation is absent. Design activism is not a middle-class and formal design methodology, but rather a means with which to enable working class and low-income livelihoods. Such actors live within unreliable living conditions and strained economic opportunities, and arguably use reactive DIY and essential DIY. For example, the use of informal structures in kit format, which are assembled and illegally installed on municipal or private property; or the hacking of public electrical outlets for private use. In such cases, intricate informal networks function to create infrastructure and utilities, which although illegal, can be considered as ethical design activism. Lewis (2012, p. 236) alludes to this when advocating for an ethical orientation to activism, which is appropriate to a South African context. He suggests that such research “recognizes colonialism as a force of oppression and domination to be resisted” and aims to “subvert colonial privileges and ally with Indigenous peoples in resistance through research and action”. In this manner, DIY legitimises collective social activism as a socio-political competency. It is arguably aligned with Busch’s (2010, p. 119) discussion of political craft, where “technophilic crafters ‘hack’ machines, reverse engineer them and apply craft thinking on them to make them into open tools”.

It is not only the artefact that can be associated with colonisation and indigenous agency, but also designer condescension. Amaral et al. (2014, pp. 163-164) suggest that in Brazil, the term “design” is considered “foreign” and “alien”, and that it is “seen as ‘better’ or ‘higher’ than other activities that can be described in the local language”. They state that countries “colonised by Portugal and England carry their legacies” and contemporary meanings of design need to be cognisant of such history. This exclusivity is also evident in how designers can occupy international agency. For example, Minuchin’s (2013, p. 248) paper on the architect Le Corbusier⁴¹ and his “Master Plan for Buenos Aires”, notes a 1935 comment from the architect in which he states that “to colonise is, simply, to ... throw oneself into the adventure. The wise, the artist, colonise everyday. To discover, means to reveal. Reveal, means changing the surface of things”. Although this form of activity and

⁴¹ Le Corbusier (1887-1965), formally known as Charles Eduard Jeanneret, trained in Switzerland and is an architect who thought in terms of a “global modern architecture in which technology would come into direct confrontation with the natural geographic forces of different macro-regions” (Colquhoun, 2002, pp. 1-23).

entitlement sits within a historical milieu, contemporary and similar examples of foreign design can be found. For example, Shenker and Michaelson (2015) note how the architect Norman Foster and his “masterplan” for a Cairo development have been criticised for “failing to preserve any of the area’s unique 19th-century architecture” and for the uncertainty of “what will happen to existing residents” in the area. Although colonialism is not mentioned, an apparent indifference to local dynamics is evident.

Their argument is of paradoxical interest to South Africa if the World Design Capital 2014 (WDC2014) is considered. Cape Town, initially represented by the Cape Town Partnership (CTP) and subsequently the City of Cape Town (CoCT), successfully applied for the 2014 designation, which was granted by the holding organisation, the International Council of Societies of Industrial Design (ICSID). Due to ICSID being based in Canada, the argument of design being a ‘foreign’ entity holds true. Yet, the South African bid committee used the country’s colonial past to motivate for the title of WDC2014 by stating that the “city was divided by design” and it is “only by design, and a reshaping of the cityscape, that a safer, more efficient and inclusive home for all our residents can be created” (WDC2014, n.d.).

On the one hand, the committee initiated an important step to develop an indigenous design vocabulary. On the other, associating design to colonisation within a government framework perhaps opened the door to political accusations. For example, when initiating the WDC2014, the Congress of South African Trade Unions (COSATU) accused the City of “racist” and “cadre” appointments (COSATU, 2014). Similarly, when reflecting on the WDC2014, it was summarised by an ANC representative who stated that it was “meant merely for clever white people” and “those who can think with design” (Felix, 2014). Although there is both truth and offensive populism in the aforementioned statements, the WDC2014 and its projects have functioned as a discursive catalyst to bring design as critical thinking to a broader constituency. For example, it is reported that the WDC resulted in 3,637 related media articles being published, an increase from 53% to 64% in awareness of design thinking amongst City officials, and 460 official projects revealed “transformative design for developing world urban challenges” to all Cape Town citizens (Cape Town Design NPC, 2015, pp. 9-14).

It is perhaps with such a backdrop that notions of equity are being associated with activism and being enabled by the design process. The use of the design process to

activate indigenous imperatives is evident in toy design⁴² and game design⁴³. Raynor (2009, p. 181) provides an intimate account of the former in a paper titled “My First Black Barbie”; although she writes from a North American perspective, her argument is well aligned with South Africans who were marginalised by Apartheid’s material culture. She notes how “representing her blackness becomes essential to her identity formation”, and that her first black Barbie “became a symbol of acceptance, identity, and power”. In addition, it allowed her to “identify with something” and “challenge the perception of others”. This use of the design process to nurture indigenous equity within adolescence worldviews is becoming increasingly common⁴⁴.

Broader applications of indigenous equity can be identified in how such narratives are being explored in game design. LaPensée (2014, p. 266) discusses her research project “Survivance”, a game in which players partake in Native American life journey quests, which include themes such as questioning circumstances, caring about others, and confronting challenges. Each player watches a video to understand the quest steps, and after completion, reflects on the experience by designing an artefact using a medium of their choice. She notes the game design process as being underpinned by a *biskaabiiyang* methodology, which is concerned with “returning to our teachings on a pathway of wellbeing”. It is an example of how an abstract quality of indigenous knowledge can be realised in a tactile manner.

The use of an indigenous narrative is of particular relevance when computer games use stereotypes. For example, Ubisoft Montreal’s role playing game, “Far Cry 3”, is described as espousing a “story of white colonialism, where the untrained white boy from America comes to save the damsel, become one with the natives, and lead them to victory” (Prell, 2012). Another example is “The Witcher 3”, developed by Poland based CD project RED®, which requires the player to engage in a mission quest titled “Racists” and save a character from being sent “to a reservation” (Fandom, n.d.). Whilst these narratives can be dismissed as imaginary and fantastical, technological trajectories are arguably creating an immersive hyperrealism that may be encroaching on a gamers lived reality. Painful experiences, derived from colonisation or racism, have effectively been commoditised,

⁴² The Otis College of Art and Design (n.d.) states that toys are an “important part of our history and culture” and whose toy design curriculum includes child psychology, engineering, model making, digital design, packaging, and presentation.

⁴³ The University of Southern California’s (2015) computer science degree in games is noted as crossdisciplinary, and covers topics such as visual design, computer animation, game hardware architectures, and game engine programming.

⁴⁴ For example, the Hijarbie doll has a similar purpose, as the Nigerian designer states it was created to “foster a positive narrative and representation of the Muslim girl” (Adam, n.d.), and the use of “#GirlPower” to accompany this description is indicative of a secondary role in challenging patriarchal traditionalism. Molemo Kgomo’s design of the Ntomb’entle dolls is a South African example which provides traditional apparel for eight South African cultures, and the design of which contributes to the “process of redefining the definition of beauty in South African girls” and the “dolls can be played with by all races, as we see with white dolls” (Ntomb’enhle Dolls, 2015).

and for such victims, these games may be intruding into their virtual cathartic environments.

It is with the aforementioned backdrop, that commercially aligned indigenous computer games, such as “Never Alone”, are of importance. The developers, Upper One Games (2016), note that it was conceived with the Iñupiat, an Alaskan Native people, and included contributions from elders, storytellers, and community members. They describe the game as an “atmospheric puzzle platform”, which can be navigated as either a young Iñupiat girl or as an arctic fox. Their company vision notes the aim to “empower indigenous communities around the world to share their stories in an authentic, engaging, and entertaining way”. Their work is arguably an example of design activism offering a new space and a constructive alternative to, for example, censoring offensive narratives.

This sub-section discussed how the design process is employed to facilitate activism with the end goal of inducing and developing democracy. It reviewed activism as struggle, activists as having class-inflected patterns, personal narratives behind common activist imagery, DIY methods that realise activism, and how forms of design activism facilitate indigenous agency. The sub-section demonstrated that employing a design process for activism is also complicated when designing for, and designed from, disenfranchised livelihoods. The following sub-section will develop this point with a focus on how the design process is aligned with notions of participation.

2.2.4 PARTICIPATION WITHIN DESIGN AND DEMOCRACY

This sub-section introduces a rationale of why participation is related to the research problem, and a prerequisite overview of nuances of the term “participation”. Following this primer, a discussion of participatory design literature applicable to notions of democracy is discussed, which includes methodologies such as *inclusive design*⁴⁵, *universal design*⁴⁶, *design thinking*⁴⁷, and *co-design*⁴⁸. The sub-section will argue that participative design is well suited to the research problem; however, the use of method requires both contextual and historical considerations.

⁴⁵ Clarkson and Coleman (2015, p. 235) describe inclusive design as a “recent international trend towards the integration of older and disabled people in the mainstream of society. This trend has manifested itself in different ways depending on the local circumstances, culture and social conditions”.

⁴⁶ The North Carolina State University (NCSU) defines universal design as the “design of products and environments to be usable by all people, to the greatest extent possible, without adaptation or specialized design”. They detail seven principles to critique design decisions, which are: equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and lastly, size and space for approach and use (NCSU, 1997).

⁴⁷ Meinel and Leifer (2010, p. xiv) suggest that design thinking is commonly “visualized as an iterative series of five major stages”, and while the “stages are simple enough, the adaptive expertise required to choose the right inflection points and appropriate next stage is a high order intellectual activity that requires practice and is learnable”. They note the steps as comprising of, and constant cycling through, the following five major steps: (re)Define the problem, understanding the users and design space, ideation, prototyping, and testing.

⁴⁸ In the first issue of the journal CoDesign, Scrivener (2005, p. 1) describes CoDesigning as “encompassing collaborative, co-operative, concurrent, human-centred, participatory, socio-technical and community design among others”.

Participation as a process is well established in both design and democracy literature. Sanders and Stappers (2008, p. 5) explain participatory design using contextual nuances. They distinguish between a North American “user as subject” and a North European “user as partner” methodology. The former is described as a passive experience, where a user provides data which experts and researchers document and interpret into a design; the latter is more active and the user is involved in “informing, ideating, and conceptualising” the design. A similar, yet explicitly democratically aligned approach, is described by Patsias et al. (2012, pp. 1-13) who describe participatory democracy as a model that “implies decentralization” and devolving of “powers to the level at which citizens can effectively influence issues”. They describe two models of participatory democracy: the first is decentralising with a top-down movement, and the second is experimenting with a bottom-up movement. These models are arguably similar to the participatory design methodologies, and concern perspectives on traversing hierarchic relations.

From a linguistics perspective, classical and contemporary approaches to participation in design and democracy research are layered. On the one hand, participatory design may be a direct response to exclusion, and a method to engender agency for those individuals and communities in which it has been denied. In other words, it aims to address and design *in* participation. On the other hand, participatory design may be a response to awareness or ineptitude, and a method that aims to inform or inspire individuals and communities who have agency, but lack critical awareness of its impact. In other words, the focus is on Designing *For* Participation (DFP). Where the former can be suggested in, for example, voting rights, Reid (2015, p. 71) provides an example of the latter. His research addresses a decline in United Kingdom individuals aged between eighteen and twenty-four voting, and looks to establish a “relationship between video games and politics through their cultural differences, and suggested ways in which video games can be supportive in stimulating political participation”.

The following discusses literature that demonstrates how the design process facilitates participation, with an appreciation that participatory design is an established methodology and it can also be employed for ulterior motives that may impede notions of democracy. The discussion will firstly unpack user-as-subject, or top-down, models, and secondly user-as-partner, or bottom-up, models. It will be argued that it is the latter that is the most applicable to the research problem in a South African context.

The use of the design process to afford participation in a wide manner, is a common feature of participatory design, which is evident in inclusive design, universal design, and design-for-all. These terms imply the same approach and are based on geographic

conventions (Heylighen and Bianchin, 2013, p. 93). They all reflect the common shift from considering that “people are disabled by physical and mental impediments” to considering that “people are disabled by designs and environments that do not take account of the full range of human capabilities” (Clarkson and Coleman, 2010, p. 127). In this regard, they offer a design process that caters for diversity, and not necessarily for the greatest influence or frequent usage. Although these methods can be applied throughout the participatory design hierarchy, the following discussion will demonstrate that they are inclined towards user-as-subject, or top-down, models.

Universal design was formed not out of participation but activism. Lid (2013, p. 203) suggests that it is a political strategy that emerged from the USA’s civil rights movement, and is linked to “democratic values by acknowledging all peoples equal citizenship” as contained in the 2008 United Nation’s Convention on the Rights of Persons with Disabilities (CRPD). Winner (1980, p. 125), who was introduced in Section 2.2.1, supports this point when he notes the “organized movement of handicapped people in the United States during the 1970s” who argued that the built environment restricted movement, and in turn “systematically excluded them from public life”. Although Winner does not specifically mention universal design, which is understandable due to its relatively recent formalisation, his research can be positioned as underpinning the use of a design process to advocate for the redress of undemocratic built environments.

It is this availability of universal design processes that suggests that the butterfly-ballot failure, discussed in Section 2.1, could have been avoided. The design was proposed to assist elderly voters, and if *gerontechnology* were considered an established area of participatory design research (Clarkson and Coleman, 2010, p. 127), the use of the Center for Universal Design’s (1997) key principles would have foreseen the problematic design prior to introduction. For example, although gerontechnology would be aligned with the first principle of “equitable use”, it would also be required to comply with other principles, such as “simple and intuitive use” and managing “tolerance for error”. Although the butterfly-ballot remains an indictment that the election official lacked design literacy, if Lausen’s (2007) book on the subject is considered, it also reveals that design methodologies that can support elections remain underrepresented.

The use of a participatory design process for elections, which is aligned with a universal design method, is arguably the Indian Electronic Voting Machines (EVM). Ranjan (2009) notes the product was designed in 1988 for the National Election Commission, and although it was electronic, it was initially tested as a cardboard simulation in order to evaluate usability and adoption, particularly amongst illiterate users. Wolchok et al. (2010, pp. 1-6) note that the EVMs have been “praised for their simple design, ease of use, and

reliability”, however, they warn that from an electronic perspective, the devices are vulnerable to “election irregularities” and “serious attacks that can alter election results and violate the secrecy of the ballot”. Their paper is a root cause analysis of the problem and discussion of ineffective countermeasures to resolve the risk. Although this could be construed as a technical issue, it demonstrates how a design process that enables democracy, such as hacking, can also be used to impede the enablement of democracy.

Structural collaboration is associated with user-as-subject and top-down participatory design processes. However, its contemporary significance is being questioned. For example, Howlett (2014, p. 199) discusses collaborative governance and policy design methods. He acknowledges that the “design process is complex” and “often internally orchestrated between bureaucrats and target groups”, and argues that dichotomies such as “hierarchical versus collaborative” are unhelpful in developing an understanding of policy design, and are distinctive of a particular “old” era of governance. His paper is an exploration of how a design thinking method can be used in a contemporary age. Using this methodology, he does not focus on policy design itself, but rather argues for “greater conceptual clarity and the methodological sophistication”, and in turn, questions “who are the designers” and “how do they design” policy. Of interest, Björgvinsson et al. (2012a, p. 101) suggest that design thinking perspectives are often just a “better articulated and more appealing rhetoric” of established participatory design. These perspectives arguably temper Howlett’s methodological distinctions.

Baynes (2005, pp. 4-43) discusses a similar mode of collaboration under the politics of consumption, which explores how the interaction between manufacturers, politicians, and consumers should be mediated. Similar to Howlett (2014, p. 199), he suggests that “greater participation involves seismic shifts in the way institutions are habitually managed”; it is his questioning of how the “general public” will “achieve access to designers, design skills and design knowledge” that is of interest to this subsection on participation. His advocating for people to move up the scale of participation, from excluded to persuaded to consulted and finally involved, is notable as it suggests that models of consumption can simultaneously occupy both a bottom-up and top-down model of participation.

Ordanini et al. (2011, pp. 445-462) discuss crowd-funding as an exemplar of a hybrid top-down and bottom-up dynamic, where collective effort does not concern “idea generation or bargaining power” but rather “financial support for already proposed initiatives”. They suggest that in such contexts, consumers are key to “activating the process” and “influencing the ultimate value of the offerings or outcomes of the process”. A shift in institutionalism is apparent when they note that the crowd-funding organisation functions

as a mediator between “those who want to deliver” and “those who may wish to support”. Although participatory design power relations are clearly revised in a crowd-funding model, so too are the projects that may be considered. For example, Wadman (2013) notes that due to scarce USA “federal funding for research on gun violence”, academic researchers have turned to crowd-funding to raise capital for research in this area.

The discussion to this point suggests that participatory design as a user-as-subject or top-down method is well represented in the literature and empirical examples. Yet, reflecting back on the Shook’s (2009, pp. 634-635) discussion of the political in Section 2.1, the methods lean towards a political science framework and the workings of government, such as navigating bureaucracy and securing resources. Of interest, Björgvinsson et al. (2012b, p. 129) suggest that participatory design research has been traditionally focused to “organise projects with identifiable stakeholders within an organisation, paying attention to power relations and the empowerment of resources to weak and marginalised groups”. They note that such an approach has been the rationale for participatory research in “contributing to democracy at work”. Furthermore, due to contemporary design activities as being more “heterogeneous, partly open and public, engaging users and other stakeholders across organisational and community borders”, they argue for a shift in participatory design to “democratisation as political design in an agonistic public framework”. The following discusses implications of this shift relative to the research problem.

From a process standpoint, if a participatory design methodology is poorly considered, it can have subversive and counterproductive outcomes, both of which may obstruct notions of democracy. For example, Murray’s (2012, pp. 200-211) research on institutionalised participatory models reflects back to the sub-section on design activism. She notes that although proponents of participatory methods describe them as “accessible, inclusive, and flexible”, such methods can have inverse outcomes. Her research on public participation with anti-poverty activists details how government employed “citizen participation” to “regulate activism”. Activism that was “accountable to communities on the outside”, was gradually eroded by institutionalised bureaucracies that operated within an “ideological model of ‘perfect’ participation”.

Another complication of participatory design is the management and discernment of artefactual quality. Crewe (2001, pp. 440-450) suggests that there has been negligible empirical research on how design professionals perceive the quality of design work executed with citizen input; she uses a large-scale Boston project to research this gap. Her study reviews perceptions of urban designers who worked on the project between 1976 and 1986. She notes a broad observation that participatory designers have

advocated for the “social and technical benefits of citizen work rather than its benefits for design, even claiming their participatory work has accomplished most in areas other than design excellence”. Perhaps this could be interpreted as participatory democracy, and not participatory design. Crewe provides more detailed observations, for example: many of the designers believed participatory work “inhibited high-profile design and marketing”, designers pushed for “control through design guidelines” and “preferred citizen participation in small, discrete projects rather than in larger ones”, and lastly, designers expressed “frustration of some kind at the public’s aesthetic tastes in general”.

Winschiers-Theophilus et al. (2010, p. 1) discuss the concept of “being participated” in an African context. Their paper is a critique of participatory design within international cooperation, and they note that problems can emerge when “developers and users originate from different socio-cultural values systems” and when “underlying systems of knowledge may be contradictory and incompatible”. Their argument not only highlights that participation can be hampered by epistemological friction, but also that it is considered to be simply an applied method, and not an existing “core value of the community” being researched. It is such sensitivity to the origin of methods and contextual suitability that resonates with the discussion of indigenous equity discussed in Section 2.2.3, and the following discusses how participatory design with a user-as-participant, or bottom-up, approach is key to the research problem and to enabling South African democracy.

Co-design is a method that is well aligned with a bottom-up perspective. Sanders and Stappers (2008, p. 6) argue that within participatory design discourse, co-design and co-creation are incorrectly treated as synonymous. They differentiate co-creation as a broad term with “applications ranging from the physical to the metaphysical”, and co-design as a “collective creativity as it is applied across the whole span of a design process”. Co-design is a “specific instance of co-creation” and concerns the “creativity of designers and people not trained in design working together in the design development process”. In this regard, co-design has numerous political imperatives, as it not only tempers modes of hierarchical organisation, but also recognises a broader ‘unqualified’ agency.

Thota and Munir’s (2011) suggestion that the concept of participatory design originated from “Kristen Nygaard’s pioneering work in the 1970s”, which also reveals co-design’s political foundation. Nygaard’s (1975, p. 9) work with trade unions reveals Marxist perspectives. For example, he states that the “liberation of the working class must be on its own achievement”, all workers must be involved in the “selection of goals and the design of actions aimed at reaching these goals”, and the workers should have “active roles within the struggle for liberation”. It is perhaps with such a backdrop that Binder et al.

(2015, p. 2) argue that “codesign as democratic design experiments, at the price of lost innocence, must commit to issues of invitation” and ultimately “re-emerge as a valuable participant among many in the endeavour to democratise democracy”. From a design process perspective, co-design can be understood as a form of sanctioned agonism, and in turn, may have both constructive and disparaging outcomes.

Design Storming is a South African example of a bottom-up method that resonates with Nygaard’s (1975) approach to participatory design. It is defined as a “platform for participatory design uniting design thinkers, community members and stakeholders to generate open source solutions”, and emerged during the WDC2014 as an official project and method with which to facilitate two-day workshops (Cape Town Design NPC, 2015, p. 204). Although it does not necessarily endorse agonism, it operates within contested, politicised, and resource poor environments. For example, the first Design Storming workshop focused on waste management in Khayelitsha, and the second workshop, which occurred a year later, focused on early childhood development (Archer, 2013). Much like Nygaard’s work with trade unions, Design Storming is arguably employed in circumstances that are enmeshed with oblique power dynamics, which has a direct impact on subsistence of livelihood.

A significance of participatory design using a bottom-up design, or user-as-partner, approach is that notions of ownership and responsibility are shared. Sanoff (2006, p. 139) discusses such a dynamic, and suggests that with “group ownership of ideas, it is the idea itself, not the presenter that is criticized” and that “all participants are involved in developing ideas and decisions where consensus has to do with shared insight or awareness”. In this regard, the idea functions in a similar manner to transdisciplinarity’s third space as discussed in Section 1.4.1, which is a mutual objective for diverse worldviews involved.

Following Crewe’s (2001) assessment of quality in top-down participatory design projects, ascertaining quality in bottom-up projects is challenging. On the one hand, the allowance for publics to use design processes to influence the world in which they inhabit, can be considered a democratic success in itself. In South Africa, this is of critical value for communities to overcome Apartheid’s exclusionary model. On the other hand, and if the project has inadvertently rescinded democracy, ascertaining root cause can be convoluted due to the bottom-up participatory design process having diffused ownership and responsibility.

Dong's (2008, pp. 82-87) discussion of design and the *capabilities approach*⁴⁹ provides a mechanism with which to reflect on the quality of bottom-up participatory design. Citing Cross (1999), he makes the distinction between the "capability to design" and the "capability as a designer", where the former is "everyone's innate capability to design" and the latter is an "expert designer's fluency". His paper concludes noting that the "capability to design connects the discourse about public engagement in design to the question of who can impose order upon the designed world" and if the "answer to that question is the citizens who inhabit that designed world, then our attention logically turns to their capability" and "developing their capability". Although Dong's point may contradict the inclusive sentiment of bottom-up participatory design, it is an important consideration when distinguishing between co-design as populism, and co-design as agonism. It shifts from advocating, to interrogating substantive participation, and in doing so, critically empowers citizen capability to make systemic changes that can influence how forms of democracy can be realised.

The use of a bottom-up participatory design approach needs to be read with attempts to transfer ownership and responsibility. For example, during the WDC2014 bid, the Mayor of the town Stellenbosch is reported (CTP, 2011) to have stated that it is "not about going to university to study design. Everyone can be a designer if they grab this chance. We are all designers", "design needs to be done with the people, not just for the people", and that "government can facilitate but it cannot create". Whilst these points are essential to reducing barriers to participation, and creating a greater awareness of design methods, they also introduce an obfuscation of ultimate ownership and responsibility. This latter dynamic is partly inferred in the literature, for example, when Fallan (2010, p. xvi), in reviewing amateur design practice and user participation, suggests that a design "definition that does not exclude anything is of little or no use"; Sanders and Stappers (2008, p. 12), when discussing levels of expertise and passion, suggest that "all people are creative but not all people become designers". Read collectively, participatory design needs to question why, at a fundamental level, it is being promoted as a universal competency or aspirational imperative.

2.3 DESIGN AND DEMOCRACY RELATED TO PHILOSOPHY

The final section of the literature review is concerned with how design philosophy can enable democracy. Love's categorisation of philosophy within abstractions of design

⁴⁹ Sen (1993, p. 1) describes the capability approach when "to a person's advantage" as being "concerned with evaluating it in terms of his or her actual ability to achieve various valuable functionings as a part of living", and these functionings "represent parts of the state of a person-in particular the various things that he or she manages to do or be in leading a life".

theory introduces the section, and due to no explicit design and democracy philosophy being found in the literature, the discussion will be structured from the perspective of an individual, community, nation, and international affiliation. The section will argue that no overarching theory of design and democracy is evident in the literature, and rather than this being considered a drawback, it is a condition of the topic.

Love (2000, p. 306) states the design as philosophy category as being concerned with general design theories and the ontology of design. He describes it as being concerned with the “whole activity of designing and its relationship to the objects involved”, managing validity and assumptions of theory, and at the highest point of the hierarchy, how human values are included in design theory. The category’s level of abstraction is at the top of the hierarchy, and located above the design as process and designed object categories.

The literature review did not identify a general design theory that is explicitly suited to the research problem. Theoretical lenses such as Social Construction of Technology (SCOT), Actor Network Theory (ANT), and the Technology Acceptance Model (TAM) were reviewed, yet ultimately considered reductionist and not suited to the emergent approach to the design and democracy research. Given the diversity and dynamism of both design and democracy in South Africa, this observation is not surprising; to claim a general design and democracy theory, one runs the risk of inversely incubating an undemocratic environment. For example, as discussed in Section 2.2.1, the well intentioned, yet contrived, goals of modernism ultimately incubated a philosophy of segregation. This section will revisit this point: that when design philosophy oversubscribes certain human values, it has a tendency to hinder democracy.

For the purpose of this section, the ontology of design provides a useful structuring mechanism to understand how the abstract nature of design philosophy influences democracy. Van Heur et al. (2013, p. 342) argue that ontology has been involved in “long-standing debates on realism and constructivism”, and from a research perspective, as a “signifier for the centrality of objects in constituting socio-technical relations”. Love’s (2000, pp. 309-311) two modalities of design ontology help guide such long-standing debates. He notes one as applicable for design as information processing⁵⁰, where the ontology of design is when the “universe is presumed to be consistent. It is assumed that it is possible to model reality exactly”. His second modality is for design as a creative

⁵⁰ See, for example, Uschold and Gruninger’s (1996, pp. 98-99) paper on design and the use of ontologies for software design. They state that “ontologies reduce conceptual and terminological confusion by providing a unifying framework” and “enable shared understanding and communication between people with different needs and viewpoints”. Of interest, Gruninger and Jintae (2002, p. 40) note that the “reuse and sharing of ontologies themselves is still limited because the ontology users (and other designers) do not always share the same assumptions as the original designers”.

process where ontology of design “includes human values, attitudes and assumptions. It does not depend on any particular world view except in the assumption that design is not deterministic” and that “design is an exclusively human activity which cannot be automated”. Using Love’s second distinction of ontology, the following will discuss how design philosophy impacts on individual and community notions of democracy.

2.3.1 INDIVIDUAL AND COMMUNITY PERSPECTIVES

This sub-section discusses how design philosophy, as related to the individual and community, enables democracy. In some respects, this has already been discussed in this chapter, for example in Section 2.2.3 regarding how design activism can be used to counter philosophies of segregation or to promote indigenous philosophy. However, such discussion concerned idiosyncrasies, and not the generalised activity of design philosophy. The following therefore unpacks such a categorisation.

Due to this study being concerned with a South African context, the use of racial stereotyping requires discussion. Bowser (2017, p. 2) discusses the origin of the term “racism”, and notes that, although it dates back to slavery, it is relatively recent. He suggests that it was “popularized” by anti-Semitism and racial eugenics during the 1930s, and later by the “US civil rights activists during the 1960s”. Faucher and Machery (2009, p. 44) explore models of racism, and it is their doxastic⁵¹ model that appears to be applicable to South Africa. In this form, to be “racist, people must believe that races exist” and that they are “morally significant (either because races are correlated with morally significant properties, or because races are intrinsically morally significant)”.

Of relevance to the topic of design and democracy, Faucher and Machery (2009, p. 43) mention controversy⁵² surrounding the comic storybook “Tintin in the Congo” by the Belgian Georges Prosper Remi (Penning under Hergé). They note that the storybook can be perceived as an “offensive form of racism” or as a “reflection of the bygone colonial era”. The repository for the 1931 comic storybook acknowledges the controversy and states that “Hergé quickly became aware of this prejudice and in as early as 1946 he revised the book, deleting everything that he considered offensive to Africans” (Hergé / Moulinsart, 2017). They note the left-hand image, in Figure 2.3 below, as the “controversial image”, and the right-hand image as the redesign version. Perhaps for Hergé, depicting Congolese children as lacking rudimentary counting skills, and being disciplined by an animal, is inoffensive.

⁵¹ Doxastic is defined as “relating to an individuals beliefs” (Oxford, 2010b).

⁵² For example, the Brooklyn Public Library removed the storybook from its “shelves after it was deemed racially offensive” (Witt, 2009).

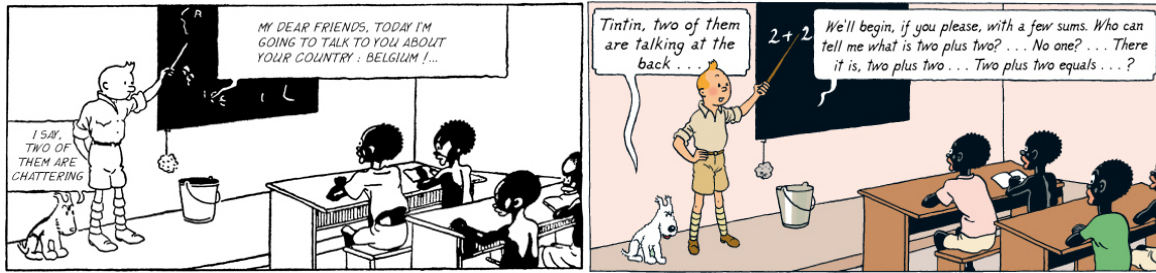


Figure 2.3: Tintin in the Congo

Yet, a comic storybook that depicts racism is not necessarily a racist design philosophy. A surprisingly contemporary example with such a philosophy can be found in the now obsolete mobile phone application SketchFactor - a navigation app that relied on “crowdsourced experiences and public data” and “exclusively focused on improving city exploration on foot” (SketchFactor, 2014). Cleland-Huang (2016, p. 109) states that it was criticised for supporting “racial profiling”, and Galbrun Et al. (2016, p. 170) that it was not cognisant of how “human perception of safety can lead to significant biases in the corresponding output”. In this instance, the underpinning design philosophy guided the choice of design process and designed object, both of which affirmed segregation.

Another approach to human relations is *genderism*⁵³. From a design philosophy perspective, it is not necessarily issues of gender representation that is of interest, but rather how gender is interpreted in order to influence collective agency. Hebbert (2005, p. 41) critiques the period surrounding Lewis Mumford’s *Culture of Cities* (1938) and states that the suburban neighbourhood was conceived to reduce a declining birth rate. He notes that suburbs were proposed to offer a “gendered space of home and family” and provide shelter from the city’s “masculine realm of power, movement and aggression”. Specific to a South African context, Meintjes (2001, pp. 350-352) researches the use of domestic appliances as a “negotiation of women’s propriety”. She discusses how washing machines in a Soweto neighbourhood “acquired symbolic meaning that interacted with and reinforced notions of appropriate gender relations and identity”. In some cases, Meintjes describes a compromise where women are “performing their washing in the open and public space of their yard” and their washing machine, which remains indoors and unused, functions as decoration to symbolise the “house-owners’ integration into a modern, consuming, 20th-century world”.

Class-inflected patterns were discussed in Section 2.2.3 and how the design process can mitigate against inequity. Florida’s (2014, pp. 197-201) research on what is termed the

⁵³ Writing from the perspective of discrimination, Hill and Willoughby (2005, p. 534) describe genderism as “both a source of social oppression and psychological shame, such that it can be imposed on a person, but also that a person may internalize these beliefs”.

creative class, introduces a design philosophy perspective. He describes the creative class occupations as being “knowledge-intensive industries that involve the production of new ideas and products”. Being a “mobile factor of production”, Florida states how the creative class can make a “place more productive”, though he also acknowledges that social problems can arise, such as “economic inequality and gentrification that go along with resurgent cities and a rising creative class”.

One way to position the creative class is to compare it with *creative community*. Medema (2011, pp. 226-227) describes such communities as being preoccupied with creating “something new, different, and influential” and who could be a “small group of individuals who develop ideas out of living and working together on an ongoing basis”. With this distinction, the creative class could be understood as leaning towards a design philosophy based on privilege, which occupies, and does not invest in, a particular context. Ingle’s (2010, p. 420) research from a South African perspective is of particular interest as it arguably synthesises creative class and creative community distinctions. He notes how individuals, indicative of Florida’s (2014) creative class, are moving to a small South African town in the semi-desert Karoo. In doing so, it has resulted in the emergence of “creative niches” and the provision of “a ‘window of opportunity’ for some measure of socio-economic upliftment”. In this regard, the creative class can contribute to a design philosophy of emancipation, and if Apartheid’s spatial planning is concerned⁵⁴, an opportunity to realise decentralised indigenous narratives through designed objects and the design processes.

Heathcott (2012, pp. 25-41) reflects on the design philosophy intersection between the individual and the community with the 1904 Louisiana Purchase Exposition (LPE) fair. He suggests that it was touted to “advance a broad argument for the realization of civic purpose through built landscape” and articulated “emerging conceptions of city life and urban order among a group of citizens increasingly self-authorized to apply their ideas to the land”. In a similar argument, Siegesmund (2013, p. 302) positions the urban environment as a blank canvas wanting to be populated by civic ideas. He does this based on the work of Friedrich Schiller (1759-1805) who advocated for an “aesthetic education to shape an imaginatively responsible democratic citizenry”, and for training in *Anschauung*, a “phenomenological awareness of interconnectedness” or “sensed empathetic relationships”. He notes that Schiller considered aesthetic learning to be

⁵⁴ Berrisford (2011, pp. 248-249) reviews attempts to unravel Apartheid spatial planning, and notes that there is a “widely acknowledged causation between old planning laws and the spatial legacy of apartheid”, how South African towns and cities reflect an “unequal distribution of infrastructure, amenities and accessibility”, and post-Apartheid “South Africa has been unable to effect any major changes to the legal frameworks governing land use and land development”.

“intellectual attentiveness to how we are in the world and how we are in relation to others around us”.

Bonsiepe (2006, pp. 27-30) discusses a structured form of empathy⁵⁵ with design humanism, which he suggests is “the exercise of design activities in order to interpret the needs of social groups, and to develop viable emancipative proposals in the form of material and semiotic artifacts”. An example of design humanism is arguably the Designing for Dignity safety blanket concept that assists Norwegian victims of sexual violence. The designers, Ulloa and Strømsnes (2013), note that assistance is required to put on the blanket as is “showing the human care”, and also informs the victim of specifically designed internal pockets. The pockets were designed to preserve “traces/evidence” in a dignified manner and to “ensure that there is no external contamination”. This is in stark contrast to the paper bags, which are currently worn by victims of sexual violence whilst they are being processed and examined by the relevant authorities.

This sub-section discussed how design philosophy, as related to the individual and community, is capable of underpinning racism, genderism, classism, emancipation, and dignity. For these examples, design does not specifically function as a philosophy in its own right, but rather as a reductionist mechanism with which to reinforce perceptions of others, or to augment subliminal experiences. The following sub-section raises the level of abstraction, and discusses how design philosophy operates at a national and international scale.

2.3.2 NATIONAL AND INTERNATIONAL PERSPECTIVES

Design philosophy that incubates or hinders democracy at a national and international level is discussed in this sub-section. The following will demonstrate that this category is well established in the literature, and occupies the apex of abstraction for the study. The discussion will also demonstrate that although design philosophy is significant in identifying and articulating national and international forms of democracy, it tends towards totalitarianism or dictatorial social values.

In order for design philosophy to operate at a national level, it often embraces a variety of design processes and artefacts. *Communication design*⁵⁶ is one such process, which

⁵⁵ This usage is distinct to empathic design, which has a commercial or industrial connotation. For example, Postma et al. (2012, p. 59) describe empathic design as a “design research approach that is directed towards building creative understanding of users and their everyday lives for new product development (NPD)”.

⁵⁶ RMIT University (2017) defines communication design as “the shaping of communication across all aspects of contemporary society, from commercial, entertainment, and education, to environmental, cultural and civic sectors”.

often makes use of a logo to propagate a message. In this sense, the term logo appears to be derived from the Greek *logos*, which is interpreted as “reason, argument, and discourse” (Oxford, 2010c). With an appreciation of this etymology, and within notions of democracy, the communication design is not simply a means with which to identify a political party or government department, but rather forms part of a larger argument on how publics should interact with institutions.

Hepworth (2017, pp. 6-21) discusses this point and communication design’s complex role in neoliberal government policy and local identity: when “communication design artifacts are used in the service of those in power” they “change the public narrative about commonly held values and cherished public institutions”, and may be “used to weaken collective experiences of democratic principles”. Using the Australian state Victoria as an example, she states that the “logos eroded the value of local government itself by contributing to a shift in its value as a service-based business enterprise”. Although Hepworth notes that the “political functioning of communication design artifacts is highly contextual”, her research resonates with the City of Cape Town’s (CoCT) new logo illustrated in Figure 2.4 below.

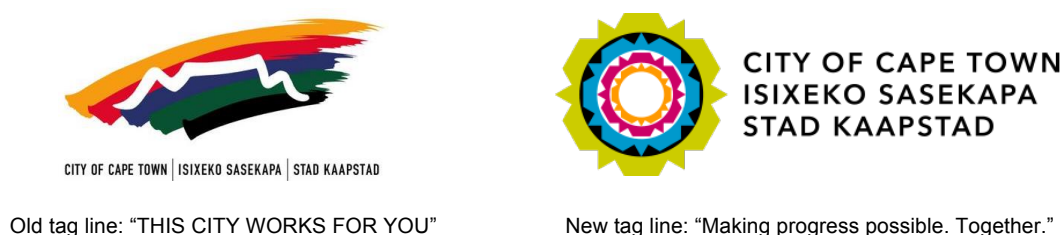


Figure 2.4: CoCT corporate identity

The logos formed part of a larger project that redesigned the CoCT’s corporate identity in 2014. On presenting the new identity, the Mayor of Cape Town was reported as stating that the old design on the left was “out-dated and misaligned with the values, strategy and vision of the city” (Spies, 2014). Where the old tagline reveals an institutional design philosophy, with values akin to servant leadership, the new tagline argues for a different approach to service delivery and, with the value of “progress”, arguably points to *neoliberalism*⁵⁷. The new logo retains the profile of Table Mountain, and although abstracted into a circular array, it can be reasoned to align with the physical locality of the CoCT metropolitan municipality. Of interest, the use of “Together” is somewhat sardonic, as the new corporate identity was criticised for not employing public participation (Legg,

⁵⁷ Ganti (2014, p. 89) notes that neoliberalism is a “polysemic concept with multiple referents” which anthropologists have generally understood as a “structural force that affects people’s life-chances” and as an “ideology of governance that shapes subjectivities”.

2015); as such the CoCT is suggestive of a design philosophy that advocates for a top-down model of participation.

The discussion to this point has revealed how national permeations of design philosophy can be paradoxical and contentious. From a democracy perspective they are discernable, and from a South African perspective, indicative of a young democracy interacting with mature government institutions. The following shifts the discussion to international permeations of design philosophy and how they are used for *place branding*⁵⁸ and are, for example, intrinsic to claims of national competency and socio-political developments.

The link between capability geography has both a historic and evolving relationship with design philosophy. *Toponyms* reveal historic instances, for example, Paisley, which is a pattern used on textiles and is “named after the town of Paisley in Scotland where shawls were made throughout the 19th century” (Clarke and Clarke, 2010).

Design as connected to geography is fairly innocuous, yet design as a form of cultural competency, is decidedly problematic. An example can be found in Sikiaridi and Vogelaar’s (2012, pp. 481-489) paper on evolving and interdisciplinary Dutch design. Although they state that Dutch design must “overcome its recent deviation into iconic design and egocentric mediatization and marketing”, they conclude their paper with such a claim, and how a proposed institutional can position “Dutch design and the creative industries at the forefront of cultural innovation”. On the one hand, the latter comment can simply be positioned as innocuous marketing collateral. Yet, on the other hand, and as a geo-political phenomenon, it has a striking similarity to the discussion in Section 2.2.3, and how design enabled twentieth-century colonisation and muted indigenous agency.

Perhaps, in response to such claims of innate national design competency, countries who have undesirable or implied design philosophies are also being reworked. For example, Hartley and Keane (2006, pp. 260-261) note how “China was generally viewed in terms of its astonishing growth as a manufacturing economy”, and at the time of their writing, the concept of Chinese creative industries was taking “root in policy, academic and entrepreneurial circles”. It is also of importance to note that the idea of design philosophy coupled with cultural competence can also be a form of socio-technical appropriation. For

⁵⁸ Medway and Warnaby (2014, p. 153) note that place branding is “often undertaken to improve a place’s image in the eyes of external stakeholders (tourists, inward investors), and boost its economic vitality and viability”. Kavaratzis and Hatch (2013, p. 82) develop how it has developed to the point where place brand managers can be used to “initiate, facilitate, and stimulate the place brand construction process”. However in all cases, these points need to be cognizant of Ruzzier and de Chernatony’s (2013, p. 46) claim that “theory development in place brand identity is at an early stage” and as such, long-term impact is yet to be understood.

example, consider how the operating system Ubuntu⁵⁹, and server software Apache⁶⁰, are positioned as open source, yet, this is done without clear consent from the relevant indigenous authorities.

A well-known example of how design philosophy can operate at an international level is the Kitchen Debate. Larner (1986, pp. 25-26) notes that this 1959 debate between Vice-President Richard Nixon and Soviet Premier Nikita Khrushchev, was a result of “reciprocal exhibitions placed by the US and the USSR” and “designed to inform the general public of the cultural and scientific accomplishments of the opposing world power”. He notes that although the “exhibits featured displays ranging from hardware to house ware”, the debate was “not a question of kitchen appliances but a question of two opposing systems: capitalism and socialism”. Of interest, the seemingly innocuous washing machine was again used as a metaphor. In this debate, the variety of models available in a capitalist system was suggested to be representative of “diversity” and a “belief in freedom of choice”, and that in a socialist system, it was believed to be “better to have one model than many”.

The Kitchen Debate not only serves to understand how a design philosophy can be positioned under an opposing political system, but also how half a century later, design philosophy has grown to distort or supersede traditional political imperatives. This point can be demonstrated with the scale of ICT. Eisenmann et al. (2008, p. 2) review the openness of Linux, Windows, Macintosh, and iPhone platforms, and indicate that Apple Inc. operated with the least open platform and Linux, the most open platform. If read with the Kitchen Debate, this observation is somewhat paradoxical, as the familiar “Designed by Apple in California” byline appears to be employing a 1950s USSR design philosophy. Similar to the contestation of the Kitchen Debate, Apple’s concentrated and closed platform is arguably cultivating alternative design philosophies. For example, the Fairphone, which allows its hardware to be customised, and is exploring making its software “source code and development environment available for anyone to use, review and modify” (Fairphone, 2017).

The use of design philosophy during international conflict is well established in the literature. Heller (2008, pp. 8-33) notes that “starting in the twentieth century, totalitarian

⁵⁹ The philosophy for the Ubuntu software states that every computer user should have the “freedom to download, run, copy, distribute, study, share, change and improve their software for any purpose, without paying licensing fees” and that it is this philosophy that is reflected in the software itself, how it is distributed, and its licensing terms (Canonical, 2017). No reference to an indigenous authority, such as South Africa’s National House of Traditional Leaders (NHTL), was found on the Ubuntu software website.

⁶⁰ The Apache Software Foundation (ASF) was established in 1999 as a charitable organization, and using a process termed “The Apache Way”, individuals who have “demonstrated a commitment to collaborative open-source software development, through sustained participation and contributions within the Foundation’s projects, are eligible for membership” (ASF, 2017). No reference was found on the ASF website regarding the etymology of the term Apache, or its relationship to the North American Indian people.

states began using the same graphic identity techniques as modern industries and corporations”, and with regard to Nazi Germany, the goal of such a method was Gleichschaltung - synchronisation in an attempt to infiltrate Nazism into German society. He reveals how design processes, such as communication design, contributed to a larger design philosophy of synchronisation. Tymkiw (2013, pp. 362-363) provides another example of how design philosophy influenced Nazi Germany. He notes how between 1934 and 1942, the “National Socialist leisure organization Kraft durch Freude (KdF) organized around 4,000 exhibitions of fine artworks, crafts and consumer objects in factories across Germany”. The basic rationale being to demonstrate that “National Socialism had made art and design more accessible to the working classes”, and more subversively that “National Socialism would enable individual Germans to come together as a Volksgemeinschaft, or ‘people’s community’ (some-times also translated as ‘racial community’ or ‘national community’)”.

Fortuna (2015, p. 2) points to similar developments in his paper titled “Italian design and democracy”. Unlike the use of design philosophy to develop towards nationalism, he indicates how it was used to recover from the “fascist nightmare”. He discusses how architects and designers recognised the “political potentialities of design only after World War II”, and looked “to build a new, different and democratic society far removed from the fascist nightmare”. It was through the “process of planning and reconstruction in the country, in a context of political uncertainty” that allowed “design to become an area where the idea of renewal, springing from all the cultural forces excluded from the majority government, could merge”.

The twentieth century was key to the appreciation of design philosophy being involved in developing international notions of democracy. For example, Margolin (2007, p. 112) notes how ICSID’s partnership with the United Nations changed from the Industrial Development Organization (UNIDO) to the Development Programme (UNDP) in 1977. He suggests the shift was significant as it formed a new partnership based on a “humanitarian effort to alleviate poverty”. In the twenty-first century, an overarching design philosophy which is applicable to this approach is *humanitarian design*, which Nielsen (2014, p. 52) defines as “design aimed at filling non-food item (NFI) demands in a disaster setting, reaching from the emergency phase to the durable solutions phase”. It is within this methodology that designed objects and processes can function. For example, LifeStraw®, which is a handheld tubular product designed to remotely “filter out virtually all of the microbiological contaminants that make water unsafe to drink” (LifeStraw, n.d.), the Better Shelter which aims to “help the millions of people worldwide who have fled armed conflicts, persecution or natural disasters” through the use of “innovative housing solutions” (BetterShelter, 2017), and Architecture For Humanity which was a non-profit

focusing on “community involvement in the design process”, “design innovation” and “building a better future through the power of design” (Architecture for Humanity, 2015).

Yet, similar to design philosophy and nationalism, these examples are not without contention. Redfield (2016, pp. 165-176) discusses the LifeStraw® within a “shifting ecosystem of ethics and enterprise” and how such projects are at odds with “postcolonial sensibilities”. He suggests that “gadget capitalism with a human face” dilutes liberation, “political language of revolution fits awkwardly alongside humanitarian design”, and conceptually, that design operates on terms of “drawing things together rather than exploding them apart”. In a similar criticism, Johnson (2011, p. 447) outlines the “soft power of humanitarian design” by situating design led initiatives within political theory. He questions the semantics behind humanitarian design, suggesting that it embodies neoliberalism, and that “progressive design” only provides “micro-social solutions to deeper structural problems”. Shifting to the personal, he suggests that “advocates of humanitarian design often fetishize professional design practice and embrace notions of self-help which preclude the possibility of achieving social justice through collective struggle and state activism”. Although both Redfield and Johnson’s theoretical arguments are well presented, they tend to have clear monodisciplinary oversight - much of their arguments inadvertently argue for design activism methodologies or a bottom-up participatory design. In addition, recipients of humanitarian design do not seem to have been consulted in the papers, and had their perspectives been documented, a more nuanced understanding of the relationship between humanitarian design and revolution would have been documented.

Pretorius’ (2015, pp. 293-311) paper on graphic design in a post-colonial South Africa, approximates a national design philosophy relative to the design and democracy research problem. She notes that graphic design was “closely interwoven with settler colonialism” but also “used to resist colonialism through the protest press and resistance media”. This dualism resonates with the aforementioned design philosophy discussion, yet, it is her comment that in a post-Apartheid South Africa, graphic design education and industry response to “transformation has been slow and incomplete” that is notable. Specifically, her argument that celebrated work “perpetuates race and gender stereotypes and which is informed by tropes embedded in colonial and imperialist discourses”. In addition, that attempts towards “integrating ‘indigenous knowledge’ into graphic design programmes remain isolated experiments”.

2.4 SUMMARY OF FINDINGS

This chapter discussed how designed objects, processes, and philosophy enable democracy, and in doing so, it provided a meta-level overview of the design and democracy literature. The first section demonstrated that while designed objects do influence democracy, they do so in a limited manner. Using the election ballot as an exemplar, it argued that to focus solely on the designed object, is to promote monodisciplinary idealism. The result is that, for designers attempting to enable democracy, a naive form of solutionism may be employed; for non-designers attempting to recruit designed objects into democracy, an equally naive essentialist understanding of the built environment is enacted. The section concluded by stating that, if designed objects are stated to enable democracy, a critical enquiry into their underpinning design process is required.

The second section unpacked how design processes enable democracy; due to its size, it was organised into four parts. The first part reviewed how historic and mature design disciplines, intentionally or inadvertently, segregated urban communities. In particular, it reviewed how an architecture-of-place may transcend the times and norms during construction, which, in turn, may both afford or hinder future generations and their collective agency. The second part reviewed how contemporary design methodologies are distributing interpretations of democracy. It reviewed how agency is circulated within domestic, and across international communities, often from contexts that may be dissimilar to the source of origin. It revealed that the designed artefact, be it in the form of a product or source code, is progressively and subversively propagated to conceal the originating designer's responsibility and agency. The underpinning argument is that the design process increasingly influences notions of democracy in a manner that is challenging to trace. The third part reviewed how disadvantaged individuals and communities make use of the design process to proactively enable democracy. In particular, it revealed how a strategic use of conflict can disrupt established regimes, and in some instances, assert discounted indigenous narratives. The fourth part reviewed how participatory design enables democracy. It revealed various approaches to traversing social hierarchies, and how such approaches are coupled with forms of institutionalism and political movements. Although participatory design is well established in the literature, and associated with enabling democracy, ascertaining the quality or impact of participatory design was noted as under-researched.

The third section discussed how design philosophy enables democracy. It revealed that when design is employed as a whole activity, the output is predominantly detrimental to notions of democracy. Examples of typecasting, authoritarianism, and totalitarianism

contributed to this perspective. However, the section also revealed that it is when design processes and objects are employed to support grand narratives or positivist imperatives, that democratic deficits may occur. In contrast, when design philosophy is employed to support liminal observations or relativist imperatives, a more favourable perspective of design philosophy emerges. For example, when design philosophy is employed to realise empathy or indigenous philosophy. The implication was that design philosophy has a precarious relationship to collective agency, and for democracy to be enabled, it should avoid directing behaviour, and rather facilitate cognitive reflection.

If the literature review of designed objects, processes, and philosophy are read collectively, and specific to a South African context, two key concepts emerge as being associated with the research problem. The first key concept concerns indigeneity, which was revealed to embody a narrative of emancipation, and a resource that is applicable to notions of democracy. It held a particular orientation to power relationships, by promoting indigenous imperatives as authentic and adverse to coercion. In this regard, indigenous is not only aligned with the dynamics of post-Apartheid South Africa, but also aligned with the Occident nature of the design and democracy literature. This is not to suggest that Occident literature is discordant with indigenous worldviews, but rather that it may not be able to articulate or enable an indigenous form of democracy. This key concept is framed as Indigenous Knowledge Systems (IKS) as an authentic context, and will be developed in detail in Section 3.1. It will argue that IKS provide an established resource with which to inform design, and to enable a South African democracy.

The second key concept that emerged from the literature review is cosmopolitanism. It was both mentioned and implied in how design and democracy is increasingly a geopolitical phenomenon. However, relative to the research problem, cosmopolitanism has a unique relationship to South Africa, due to the country having experienced economic sanctions imposed on it by its major trading partners⁶¹. Although these restraints have since been lifted, they arguably interrupted assumed geopolitics, and allowed South Africa to reflect on how it occupies international communities, and conversely, how foreign entities occupy South Africa's territory. In this sense, cosmopolitanism is concerned with looking outwards, and in doing so, provides a countermeasure to IKS looking inwards. With this in mind, the second key concept is

⁶¹ In 1986, the USA, the European Community, and Japan imposed economic sanctions on South Africa (Hefti and Staehelin-Witt, n.d., p. 1). During this period, Becker (1987, p. 147) disputed the widely held belief that sanctions would "greatly hurt poor South African blacks" and stated that they would rather "cause labor-intensive sectors to expand, thereby limiting the impact of a general recession on unskilled nonwhites". With the benefit of hindsight, Levy (1999, pp. 415-417) argues that, although the "South African sanctions appear to have been successful", this is due to the actions of private actors, such as banks and credit worthiness, and not governments.

framed as cosmopolitan theory as normative organisation, and will be discussed in detail in Section 3.2.

CHAPTER 3 FOCUSING WITH IKS AND COSMOPOLITANISM

A bird that flies off the earth and lands on an anthill. It is still on the ground.

Believed to be an Igbo (Nigerian dialect) proverb, origination date, and author unknown

Sourced from Achebe (1987, p. 146)

Our relations to the world are both intimate and based on how we believe a greater community should function. These modalities are reciprocal, in the sense that intimacy can be determined by community dynamics, and in turn, a community can emerge from developing intimacy. The proverb above illustrates this symmetry, which Achebe relates to family bonds in his book “No Longer at Ease”. Within this narrative, he implies that celebrated accomplishments from foreign lands should remain secondary to one’s own homeland. Such accomplishments are anthills – they can only be built, in both a material and foundational sense, from the ground or, as Achebe writes, from “blood”.

Although Achebe’s interpretation reveals the transgenerational tensions coupled to the African diaspora, the proverb also provides an alternative image suited to developing the design and democracy literature review. As a secondary body of evidence, the literature is historic and immense, and requires academic diligence to review the two key concepts. Like in the proverb, each concept is an anthill, latently concealed in an expansive African ground, and to categorise them as mere topographical details, is to underestimate the thriving and complex subterranean colony under which they bely. Similarly, to consider each anthill as independent is to ignore the relationships that form underground, beyond plain sight.

This literature review builds on Chapter 2’s broad and exploratory literature review findings, and focuses on and explicates the two key concepts that were identified. Concepts are discussed individually and, being components of the conceptual framework, are discussed in a transdisciplinary manner relative to each other. The first key concept and component of the conceptual framework to be discussed, is Indigenous Knowledge Systems (IKS) as an authentic context in Section 3.1. This section develops what is meant by “indigenous” and “IKS”. The discussion will reveal the changing perspectives on African knowledge, and why, after centuries of being largely discredited or romanticised, it is increasingly being recognised as a valuable body of knowledge within Academia. The section will delineate towards a subcategory of IKS, the African concept of Ubuntu, which is positioned as an authentic form of South African democracy. Bhengu’s (1996) work on such a claim will develop this discussion, and attention will be paid to supporting exemplars that involve South African urban contexts. The section will argue that it is such

collective and dynamic environments that ultimately stand to gain from IKS, particularly when Ubuntu functions as a decolonial resource used to inform how design should enable South African democracy.

The second key concept to be developed, is cosmopolitan theory as normative organisation in Section 3.2. The section will unpack the term cosmopolitanism and discuss why it is appropriate to design and democracy research. Its application to the research problem will be firstly established by discussing the driving political philosophies that shaped South Africa during colonialism, Apartheid, and democracy. Secondly, using the work and interpretations of Dewey and his particular interpretation of cosmopolitan theory, the section will argue that cosmopolitanism provides a means with which to appreciate geopolitical agency, unforeseen cross-cultural power relations, unique manifestations of community agency, and ultimately, how South African democracy can be enabled when design is used to experiment with this form of normative organisation.

The chapter concludes with a reflection of the two key concepts using the conceptual framework, where each key concept is interpreted relative to both the broad understanding of design and democracy in Chapter 2, as well as to each other. The discussion will focus on answering the two sub-questions of how IKS is capable of influencing democracy in urban and diverse communities, and how design can facilitate dynamic participation in a South African democracy. It will be argued that although the chapter addressed these questions, additional primary research is required to further answer them in a transdisciplinary and in-depth manner.

3.1 INDIGENOUS KNOWLEDGE SYSTEMS (IKS) AS CONTEXT

Indigenous Knowledge Systems (IKS) is the first key concept to be discussed in this chapter. The term *indigenous* is derived from the Latin *indigena*, which translates as “native” (Oxford, 2010b). In this definition, it is fairly generic and can be applied to any country or community. Yet, within a South African context, indigenous has a particular interpretation. For example, Barnard (2006, p. 17) suggests that in a post-Apartheid South, indigenous is a “term applied to people - and by the people to themselves” and it is all about “identity, among various ethnic groups” with claims “to rights, land and competing claims to ‘first people’ status and standing”. Of importance, he notes the contentious relationship between indigenous and cultural identity, and although it has been used by, for example, the San⁶² to politically organise themselves, it can also be considered an

⁶² Also colloquially referred to as the “Bushmen”, a term which is “difficult to distinguish from colonial stereotypes” (Sylvain, 2005, p. 354).

offensive term under the guise of “primordialism” or a “residual colonialism”. Sylvain (2005, p. 356) suggests that indigenous people’s activism arose “largely in response to the disenfranchisement and dispossession”, which was created by “megaprojects and imposed by states and multilateral agencies during a wave of developmentalism in the 1960s and 1970”.

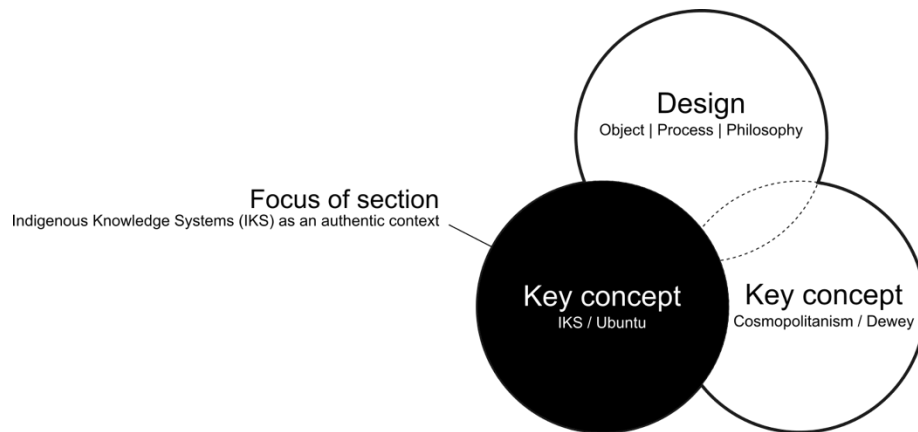


Figure 3.1: Indigenous Knowledge Systems (IKS) as an authentic context

Whilst the aforementioned definitions and descriptions of indigenous are highly applicable to a South African context, IKS occupies a different imperative. For example, Rajasekaran (1993, p. 195) describes IKS as a “systematic body of knowledge acquired by local people through the accumulation of experiences, informal experiments, and intimate understanding of the environment in a given culture”. Tharakana (2015, p. 52) suggests that manifestations of IKS can vary in “scale from small, indigenous communities to national systems”. Lastly, Gupta (2012, p. 380) suggests that there is “no universally accepted scale for measuring indigenousness”. Unlike indigenous, IKS is not necessarily concerned with reactionary activism, but rather as an epistemology, it functions as a particular body of knowledge. It is this body of knowledge that is argued to be of importance when it comes to informing designed objects, processes, and philosophy, and in turn, enabling an authentic and contextual democracy. Figure 3.1 above indicates how this interpretation of IKS is positioned in the conceptual framework as an authentic context. In order to appreciate its relevance to the research problem, the following section provides key background information on African philosophy.

3.1.1 LOCATING INDIGENOUS KNOWLEDGE SYSTEMS

Ramose (2005, p. 21) cites Hegel’s⁶³ (1770-1831) lecture on the philosophy of world history and his statement that Africa is an “unhistorical continent, with no movement or

⁶³ Georg Wilhelm Friedrich Hegel was a German theologian born in Stuttgart, influenced by the writings of Immanuel Kant (1724–1804), and who for example “maintained that freedom was not the fulfillment of personal desires or whims” and rather a “rare condition that allowed people to live rationally and self-consciously in community with others” (Phillips, 2009, pp. 1-3).

development of its own". Although he reduces Hegel's argument as simply being a predisposed teleology of "divine providence and reason", his decision to use this lecture, and similar arguments, to introduce his book on African philosophy, is significant. In other words, Ramose develops African philosophy by having to firstly address colonialism, and argue for what Africa is not, before introducing what it is. This is a fairly common⁶⁴ thread in the literature, which reveals that although the colonial epoch⁶⁵ may have ended, its influence remains profound.

Following the colonial withdrawal from Africa, nations and communities began the process of post-colonial and decolonial introspection, and relative to IKS, these two approaches are nuanced. Bhabra (2014, pp. 115-118) states that post-colonisation is concerned with the nineteenth and twentieth centuries, and that decolonisation starts from the fifteenth century onwards. He suggests that post-colonial scholarship is concerned, for example, with "questioning the implied assumptions of the dominant discourses by way of which we attempt to make sense of the worlds we inhabit". In addition, he states that decolonisation scholarship is concerned with, for example, "acknowledging the sources and geo-political locations of knowledge while at the same time affirming those modes and practices of knowledge that have been denied by the dominance of particular forms". Of importance to the context, Ahluwalia (1993, p. 35) discusses decolonisation and national liberation, and suggests that the two post-colonial thinkers, Fanon (1925-1961)⁶⁶ and Said, theorised "decolonisation as a process that persists". In other words, and for the purpose of this IKS section, post-colonisation can be understood as exploring international power relationships, and decolonisation can be understood as perpetual explication for contextual power modalities⁶⁷ and acknowledging the legitimacy of the Other⁶⁸.

Using these distinctions, it can be argued that South Africa's transition from Apartheid to democracy was largely post-colonial, and if recent developments are considered, it appears that decolonisation is emerging. For example, South Africa's Indigenous

⁶⁴ For example, Viriri and Mungwini's (2010, p. 28) research on African identity and whose introduction starts with: "colonial relationship between Europe and Africa saw the dehumanization that gave birth to the enslavement of the African people for the sole reason of economic exploitation and the perpetuation of racial and cultural stereotypes"; or Tambulasi and Kayuni's (2005) paper on democracy and governance in Malawi which is titled "Can African feet divorce Western shoes?".

⁶⁵ Cooper (2005, p. 4) states the colonial project as "vaguely situated between 1492 and the 1970s"; in reviewing the partitioning of Africa, Mackenzie (1983, p. 10) suggests that the European cartographer, Sir John Scott Keltie, considered ten-million square miles of African territory as a "continent of blank spaces where the principal physical features-rivers, lakes, mountains-were gradually being filled in by European exploration".

⁶⁶ Frantz Fanon was born in Martinique and educated in France; he is known as a "revolutionary theorist" with a particular focus on themes of colonisation and racism (Alessandrini, 1990, pp. 2-3). Of interest, More (2017, p. 140) suggests that in a contemporary South Africa, the "voice of Fanon reverberates with greater intensity and urgency than before" and "speaks with deafening noise to the black youth of the country" and the struggle against a "neo-liberal capitalist greed".

⁶⁷ It is also of benefit to note Makhubu (2012, p. 51) who questions the use of terms such as Post-Black or Post-Race, and in turn suggests they create a "mirage that 'things have moved on' when the material conditions in which people find themselves still perpetuate race-based judgements".

⁶⁸ The notion of "The Other" has been ascribed to Emmanuel Levinas and his writing on ethics. Harrist and Richardson (2011, p. 347) suggest that the rational of Levinas' "emphasis on the radical alterity of 'the Other' is to resist the comprehending dominating power of reason in the Western tradition. Thus, he insists on the absolute alterity of 'the Other,' which is always beyond our grasp of understanding".

Knowledge Systems (IKS) bill sets out the criteria for a National Indigenous Knowledge Systems Office (NIKSO) which are as follows: “provide for the management of rights of indigenous knowledge holders”, “provide for the registration, accreditation and certification of indigenous knowledge practitioners”, and “facilitation and coordination of indigenous knowledge systems-based innovation” (*Protection, promotion, development and management of indigenous knowledge systems bill*. South Africa. Parliament of the Republic of South Africa, 2016.). At an application level, the National Research Foundation (NRF) provides funding for IKS in areas ranging from bio-economy, epistemology, environmental management, and energy (NRF, 2014, p. 3). These examples demonstrate a decolonial imperative that aims to acknowledge, affirm, protect, and develop⁶⁹ South African indigenous knowledge.

Although legislation demonstrates an institutionalised approach to indigenous knowledge, other factors need to be kept in mind. Colonisation and Apartheid have a paradoxical relationship to IKS. For example, Du Bois (2004, pp. 227-228) discusses South African law and notes that although “indigenous law was never officially recognized in full by the colonial state”, it was formalised by the system of “indirect rule which incorporated indigenous leaders into the colonial administration as junior partners and permitted them to adjudicate disputes according to indigenous law” which came to be termed “customary law”. Although Du Bois makes it clear that such developments leaned towards British interests, he notes that customary law⁷⁰ was a legal system “which provided much of the law regulating the intimate lives of the oppressed majority and, however, deformed, represented a link with Africa's pre-colonial past”.

A similar argument could be made of the Apartheid government's separate development policy, which segregated the population into homelands based on cultural affiliation using the Bantu Authorities Act No. 68 of 1951 and the Promotion of Bantu Self-Government Act No.46 of 1959. Where the former aimed to provide for the “establishment of certain Bantu authorities and to define their functions” (*Bantu authorities act*. South Africa. Senate and the House of Assembly of the Union of South Africa, 1951.), the latter aimed to provide for the “gradual development of self-governing Bantu national units” (*Promotion of Bantu self-governing act*. South Africa. Senate and the House of Assembly of the Union of South Africa, 1959.). In both cases, the acts strategically favoured Apartheid's model of preference and discrimination, yet, similarly to customary law, they also provided a

⁶⁹ Of interest, the IKS Bill (*Protection, promotion, development and management of indigenous knowledge systems bill*. South Africa. Parliament of the Republic of South Africa, 2016.) specifically addresses the relationship between IKS and design, and states that it will not detract from the Designs Act, 1963 (Act No. 195 of 1963). It is unclear why the more recent Designs Act, 1993, was not referenced.

⁷⁰ Ramatsekisa (2008, pp. 39-40) suggests that “ideologically, African customary law is communal or socialist in approach” and that “customary law does not have private law. It is communal by its nature”.

mechanism with which to demarcate and essentialise indigenous knowledge. In doing so, indigenous knowledge systems may have been paradoxically incubated by Apartheid.

In a democratic South Africa, and as colonial and Apartheid striations recede, cultural imperatives that may have become deterministic, are considered criminal. For example, Ramatsekisa (2008, p. 44) notes that although “African law and custom has always had a patriarchal bias, the era of colonialism saw it exaggerated and entrenched through a distortion of custom and practice”. He notes the practice of *Ukuthwala* as an example, “where a woman is forced into a marriage”, and comments on its conflict with contemporary notions of gender equity. It is this practice that the South African Department of Justice and Constitutional Development note as being “practiced in different ways from the original tradition, as it is marked by violence and rape”, and prohibited under the Sexual Offences and Related Matters Amendment Act No. 32 of 2007 (Republic of South Africa, n.d.).

In segregating the population, the Apartheid state also shielded valuable and indigenous knowledge systems from willing adopters or broader markets. For example, the *Hoodia gordonii*, a medicinal plant associated with the San, is being developed and commercialised with applications of obesity management (CSIR, 2010). Tomaselli (2014, pp. 633-642) frames this project as “appropriation” and “predatory”, where a “traditional commons has been translated into ‘property’ whose proceeds and recipients are now being questioned by those who still have access to the plant”. He acknowledges the protective measures under the IKS Bill (Protection, promotion, development and management of indigenous knowledge systems bill. South Africa. Parliament of the Republic of South Africa, 2016.), but suggests that the “fairly organic production” of indigenous knowledge is “incompatible with the rigours of copyright law”. Berson’s (2010, pp. 209-220) research on intellectual property and cultural appropriation provides further insight into this dynamic. He questions if “indigenous communities should exert protectiveness toward intellectual resources not dissimilar to that of highly capitalized vendors”. Furthermore, and with regards to forms of ownership, Berson questions if juxtaposing “traditional knowledge to intellectual property” results in an incarceration of “indigenous collectivities”. In this regard, Berson’s argument is aligned with decolonisation and affirming context, yet it also questions the gains of perpetuating decolonisation.

This sub-section introduced complexities that may emerge when engaging with IKS, by approximating it to notions of jurisprudence, cultural determinism, commoditisation, and property. It argued that IKS had a layered and oblique relationship with colonisation, Apartheid, and a democratic South Africa, and is both distinct in itself and partly as a result of segregation. Although, in some instances, IKS can be considered as historic

knowledge, it is increasingly at the forefront of innovation and ultimately a contemporary and modern phenomenon. The following section discusses the particular area of IKS under review - the African concept of Ubuntu.

3.1.2 THE CONCEPT OF UBUNTU

Ubuntu is a Nguni⁷¹ term meaning *Umuntu ngumuntu ngabantu*, which interprets as, “a person is a person through other persons” (Metz and Gaie, 2010, p. 274). From a socio-linguist perspective, Ramose (2005, pp. 36-37) suggests that Ubuntu is, in fact, two words: Ubu-ntu. The prefix and verb Ubu- “evokes the idea of be-ing in general”, and the noun stem –ntu is the nodal point at which “be-ing assumes concrete form or a mode of being”. He continues to note that although Ubu- can be considered “distinctly ontological”, and –ntu “distinctly epistemological”, they do not have “irreconcilable realities” and alludes to a co-dependent motion between the two. This is perhaps best summarised in his analogy “be-ing becoming” and that Ubuntu is a –ness and not an –ism. The extent of phonological variants of African Ubuntu, particularly with the noun stem –ntu, is shown in Figure 3.2 below.

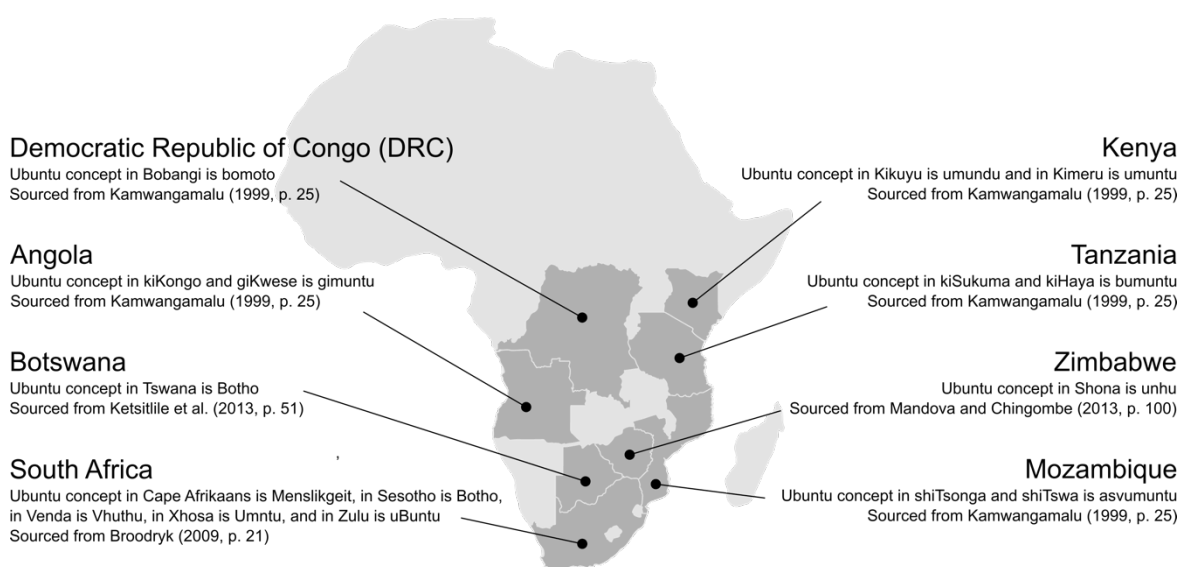


Figure 3.2: The concept of Ubuntu in Africa

The distribution of concepts of Ubuntu in Africa appears to be sub-sub-Saharan and conjoined by country. Although the African countries have different languages and terms for Ubuntu, the concept remains fairly consistent. For example, Broodryk (2010, pp. 47-49) suggests that Ubuntu is concerned with “the ideal of being human” and “humanity towards others”, and that “individualism is less important than communalism”. He states that in South Africa, Ubuntu is articulated in Cape Afrikaans as Menslikgeit, in Sesotho as

⁷¹ The Nguni languages comprise of a group of Bantu languages spoken in Southern Africa.

Botho, in Venda as Vhuthu, in Xhosa as Umntu, and in Zulu as uBuntu (2009, p. 21). Mandova and Chingombe (2013, pp. 100-108) suggest that Ubuntu is concerned with “mutual social responsibility”, “caring and respect”, and “solidarity and social cohesion”. In Zimbabwe, they state that Ubuntu is articulated in Shona as unhu.

Ketsitlile et al. (2013, pp. 51-52) note that Ubuntu can be abused when “one group extends Ubuntu/Botho and the other does not”. In Botswana, they state that Ubuntu is articulated in Tswana as Botho. Kamwangamalu (1999, pp. 25-26) suggests that Ubuntu is concerned with “personhood” and the “respect for any human being, for human dignity and for human life”. He provides considerable evidence that Ubuntu is a pan-African concept, and, citing Kagame (1976) and Yanga (1997), notes that in Angola, Ubuntu is articulated in kiKongo and giKwese as gimuntu. In the Democratic Republic of Congo, he notes that Ubuntu in Bobangi is bomoto. In Kenya, he notes that Ubuntu in Kikuyu is umundu and in Kimeru is umuntu. In Tanzania, Kamwangamalu notes that Ubuntu in kiSukuma and kiHaya is bumuntu. Lastly in Mozambique, he states that Ubuntu in shiTsonga and shiTswa is asvumuntu.

If the various interpretations of Ubuntu are read collectively, two observations stand out. The first is *anthropocentrism*⁷² and how the “human” is positioned at the centre of the descriptions, and equally, how no mention is made to fauna, flora, or deity. In this regard, Ubuntu appears to discount philosophies associated with naturalism or creationism. The second observation is *humanism*. In the broadest sense, it is evident when a “world-view gives special importance to human concerns, values, and dignity”, and may organise under an “atheist view” (Law, 2013). A narrower Fanon form of new-humanism is also evident, which Naicker (2011, p. 457) states is “relational”, “formed by the emergence of the self in relation to the other”, and when a “new person emerges from the lived experience of a society through the constant process of struggle to understand the relations that bind them”. This conception that Ubuntu is a form of struggle is important. It distinguishes the idea of being from a Heidegger (1889-1976)⁷³ view, which is suggested by Nussbaum (1997, pp. 2-3) to be concerned with waiting “passively for the revelation of Being”. In other words, Ubuntu is a form of agonism. The following discusses these observations by returning to Ramose’s (2005) *being becoming* analogy.

Menkiti (2005, p. 3) develops the analogy as a project that is concerned with ontological progression towards a normative concept of the person. He describes stages of

⁷² Anthropocentric is a “view magnifying the importance of human beings in the cosmos” (Blackburn, 2008).

⁷³ Martin Heidegger was born and educated in Germany; he researched and taught the “history of philosophy”, “phenomenology of religion”, and “philosophical logic”, and is known for his research on the meaning of being and its relationship to time (Dreyfus and Wrathall, 2004, pp. 2-3).

“incorporated personhood via the community”, from developing from an “it”, towards adulthood, elderhood, and then ancestorhood. Importantly, Menkiti notes that, where an ancestor in Occident discourse is equitable to loss, within an African worldview “ancestors are themselves still continuing persons, still very much a part of the living community”. Rather than being a sentiment, this worldview relationship has been at the forefront of revanchism and how land enables ancestor relations. For example, a supreme court of appeal case involved a land occupier’s “right to bury family member on land of owner without owner’s consent” as it was consistent within their “tradition and cultural beliefs” and a means to continue “sharing a day to day life” with the deceased “though in a different form” (*Bührmann v Nkosi and Another* [2001]).

Addressing conceptions of *being becoming* is contested when Figure 3.2 is juxtaposed to Occident communities. For example, Cartesian logic, or René Descartes’ (1596-1650) formulation of *cogito, ergo sum*, which translates to “I think, therefore I am”, is frequently stated as being diametrically opposed to African ontologies and Ubuntu (Balcomb, 2001, p. 23; Naicker, 2011, p. 456; Oyowe, 2014, p. 333; Tomaselli, 2014, p. 634). Using such a comparative argument points towards a philosophical reasoning based on deflationism, and also demonstrates the inherent difficulty, or superfluousness, when employing a post-colonial mode of reasoning. An alternate approach is used by Motha (2010, p. 301), who uses Ramose’s analogy to unpack Krog’s (2009) book title “Begging to Be Black”, and unpacks what it would mean for “white South Africans to undergo epistemic and ontological decolonization as a condition of being-becoming”. He suggests that decolonising, and not decolonisation, is aligned with the “verbal character of ubuntu which operates as a gerund” and “signals the ongoing, and possibly endless task of undoing colonial legacies”. In this regard, Ubuntu is not only affirmed as a contextual practice, but also as an authentic mechanism with which to operationalise decolonisation.

Perhaps due to African philosophy having its origin in an oral tradition (Venter, 2004, p. 153), and indigenous knowledge often being transmitted orally, through imitation, or demonstration (Tharakan, 2015, p. 53), written accounts of Ubuntu are fairly recent. Gade (2011, pp. 304-306) traces accounts back to 1846, and notes a rapid increase in usage following its inclusion in South Africa’s 1993 interim constitution. He suggests that Ubuntu signifies a “narrative of return” that is similar to the “narratives of return told during the early years of decolonization”. Although his argument is well established, it positions Ubuntu similarly to the work of Nussbaum (2003, pp. 21-25), who describes it with terms such as “harmony”, “care deeply”, and “salvation”. In doing so, and in both cases, Ubuntu is a symbolic device that is preoccupied with describing emotive, and almost creationist, ideals. Although this is not necessary a failure, it positions Ubuntu as a passive

abstraction, and not as an IKS resource which can inform the study and address the research problem.

Bennett (2011, pp. 30-31) notes that the frequent attempts to describe Ubuntu as, for example, humanity, personhood, or humaneness, are unable to convey its many connotations or cultural implications. He suggests that a “better path to understanding ubuntu is to consider the ways and contexts in which the word is being used”. The following uses such an approach to understand how Ubuntu is a form of democracy.

3.1.3 UBUNTU AS DEMOCRACY

Bhengu (1996, p. 23) states that “democracy in African societies was based on the philosophy of Ubuntu”, and makes the important qualifier that this does not imply that “leaders in the pre-colonial years did not at times go against the spirit of Ubuntu”. In a similar manner, he states that for the Tsongas in South Africa’s Northern Province, public participation is “emphasised in policy making”, but “kinship and age groups are the most important organisational principles”. These qualifications are important, as they reflect back to Section 1.2, and distinguish between political philosophy and political science. Using the former, the following provides examples of how Ubuntu functions as a political philosophy in a South African democracy⁷⁴.

Ubuntu’s inclusion in South Africa’s 1993 interim constitution was under the sub-heading “National Unity and Reconciliation”, and stated that “there is a need for understanding but not for vengeance, a need for reparation but not for retaliation, a need for ubuntu but not for victimisation” (*Constitution of the Republic of South Africa*. South Africa. Parliament of the Republic of South Africa, 1993.). Bennet (2009, pp. 1-29) notes that during South Africa’s transition to the new dispensation, parties and courts agreed that “only the law currently being ‘lived’ by its subjects should be regarded as true customary law”, and that “only living law is valid required, in turn, a decision about how to discover and assess new rules”. Bennet (2011, p. 30) also notes that although the “new constitutional dispensation had the effect of elevating customary law to the same status as that of the common law”, it was Ubuntu that helped reverse a unidirectional “flow of terms and concepts”. In other words, an indigenous imperative began to influence established political terminology.

Cornell and Muvangua (2012, p. xi) draw a parallel between dignity and Ubuntu, and state that both “dignity and ubuntu are integrally tied to an ethical ideal of what it means to be a

⁷⁴ Of interest to the distinction between political philosophy and political science, the Ubuntu Party took part in the 2014 South African national elections and gained 0.04% of the vote, and in turn, no parliamentary seats (IEC, 2017).

human being, and therefore one would expect that there is a resonance between the two”. A founding provision of human dignity holds the pivotal role in South Africa’s constitution as noted in Chapter 1, Section 1, item (a), and is defined as the “achievement of equality and the advancement of human rights and freedoms” (*Constitution of the Republic of South Africa*. South Africa. Parliament of the Republic of South Africa, 1996.). Although Chaskalson (2011, pp. 1381-1382) does not make the same correlation as Cornell and Muvangua, he affirms the importance of dignity in a post-Apartheid context, and addresses opponents of its inclusion in the constitution who suggest that it a “vacuous” and “polemical” concept. He counters such claims by pointing out that the conception of dignity is “not a debate for South African lawyers and judges”, and rather it is an imperative for lawyers and judges to “give effect to the Constitutional mandate, and give meaning to its language”. In other words, dignity cannot simply be overlooked, but is required by law to be interpreted. It is a notable comment that can be equally applied to Ubuntu, which in turn requires a second step to give it meaning beyond cursory sentiment. This resonates with the example of the Designing for Dignity safety blanket, discussed in Section 2.3.1, in which the designers interpreted and effectively applied dignity to victims of sexual violence.

Cornell and Muvangua (2012, pp. 123-124) discuss how an eviction order resulted in a legal process giving meaning to and operationalising Ubuntu. The case involved “persons who had unlawfully occupied privately owned land” and whom a South African municipality wished to have evicted to a township. The court ruled in favour of the persons, indicating that legislation which protects the right to private property and the right to housing, “must be interpreted” with “reference to the compassionate solution demanded by ubuntu”. Of interest, Cornell (2014, p. 113) reflects on this case in subsequent literature, and suggests that “what is at stake in uBuntu is the promotion of a dialogue in situations of conflict, of the sort akin to the ancient dialectical meaning of the term as it comes to us through logos”. She continues to state that it is “about confronting the situation at hand in its full sense”, and “questioning the history of colonialism to remind ourselves of the history, for example, of forced removals”. Although Cornell’s use of logos is in a classical sense, it does reveal how for example, communication design could be used to deconstruct complex narratives of remembrance.

The interpretation of the meaning of Ubuntu at a national scale has been noted as a concern. For example, Marx (2002, pp. 50-56) suggests that that a “new cultural nationalism, centred on the notion of ‘Ubuntu’, is preparing the ground in which the ‘flowers of evil’ might once again blossom in South Africa”. These flowers are an allusion to Apartheid, and their seed is equivalent to the nationalists who “promote ideas of ‘Volksgemeinschaft’, connection with the earth (Mother Africa) and cultural unity”; in

“South Africa they have been condensed into the pithy formula of Ubuntu”. His argument is about when “solidarity” becomes “conformity” and, although noticeably alarmist in style, it does allude to the discussion in Section 2.3.2 and the trepidation of using a design philosophy to incubate ideologies of synchronisation and national communities.

Table 3.1: South African Batho Pele principles

	Description
Consultation	“Citizens should be consulted about the level and quality of the public services they receive and, wherever possible, should be given a choice about the services that are offered”.
Service standards	“Citizens should be told what level and quality of public service they will receive so that they are aware of what to expect”.
Access	“All citizens should have equal access to the services to which they are entitled”.
Courtesy	“Citizens should be treated with courtesy and consideration”.
Information	“Citizens should be given full, accurate information about the public services they are entitled to receive”.
Openness and transparency	“Citizens should be told how national and provincial departments are run, how much they cost, and who is in charge”.
Redress	“If the promised standard of service is not delivered, citizens should be offered an apology, a full explanation and a speedy and effective remedy; and when complaints are made, citizens should receive a sympathetic, positive response”.
Value for money	“Public services should be provided economically and efficiently in order to give citizens the best possible value for money”.

Batho Pele is an interpretation of Ubuntu, which has been formally institutionalised by government. It is a Sesotho adage meaning “People First” and consists of eight principles as described in Table 3.1 above (*Transforming public service delivery white paper (Batho Pele white paper)*). South Africa. Parliament of the Republic of South Africa, 1997.). The efficacy of Batho Pele in the literature is varied. For example, it has been used in the Constitutional Court (*Joseph and Others v City of Johannesburg and Others* [2009]) judgment regarding the “protection of citizens’ rights”, “procedural fairness”, and when noting that “Batho Pele gives practical expression to the constitutional value of ubuntu, which embraces the relational nature of rights”. This judgment effectively constrained economic determinism by ordering a utility company to reconnect electricity supply to customers who failed to pay for their services.

Mofomme and Barnes’ (2004, pp. 15-16) research on a South African Police Service’s Client Service Centres (CSC), using Batho Pele principles provides further insight. Although they state that the “quality of the service rendered in terms of Batho Pele is very poor”, they also reveal that “customers do not seem to expect the police to be friendly and courteous towards them”, and that the “CSC believe that service delivery can only be improved through more and better resources”. Kroukamp’s (1999, p. 337) summary on Batho Pele and service delivery helps reflect on these findings. He states that “improving public service delivery is not a one-off exercise” and that “Batho Pele does not promise the impossible; by itself it will not solve such problems as poverty, crime, social injustice, nor should one expect it to”. His point echoes the discussion in Section 2.2.4, and

suggests that Batho Pele is an advocatory top-down imperative, and not necessarily a substantive deliverable. However, it is also an indication that designed objects and processes are missing from the discussion. For example, service design as introduced in Section 2.2.2 is well positioned to realise Batho Pele principles.

The Truth and Reconciliation Commission (TRC) is an example of how Ubuntu can function at a national, yet temporary scale. The TRC was set up by the South African government to help deal with the conflict from Apartheid, and the resultant violence and human rights abuses (DOJ and CD, 2009). Marschall (2010, p. 375) notes that the commission took the decision to include “the suffering of all apartheid-era victims, irrespective of which side of the ideological divide they stood”, as both were considered to be of “equal moral significance”. He notes a consequence being that the liberation fighters who may have killed civilian bystanders were also requested to ask for amnesty alongside the administrators of Apartheid. The approach to amnesty is described in a commission report (2009, p. 447) as “seeing both the deed and the doer and severing them from each other. This is part of restorative justice⁷⁵. This is part of the spirit of ubuntu”. These decisions and approaches reveal how Ramose’s (2005) seemingly abstract articulation of Ubuntu as “being becoming”, can be interpreted in highly contested situations⁷⁶.

The process employed by the TRC is not without criticism. For example, Evans (2016, p. 717) points out how the statistics in the commission’s final report provides “apartheid apologists” an “argument that the apartheid state was less violent than liberation”. Although such an injudicious claim does not warrant further discussion, it does highlight the procedural difficulty of employing Ubuntu on a national and temporary scale. It can be argued that the TRC placed the structural dynamics of Apartheid and liberation on hold, and rather focused on reconciling the normative experiences of victim and perpetrator. The intensity of these dynamics may not be translatable to a formal or universal format, such as written reports or television. In this instance, Ubuntu was enabled only by direct participation and agonism.

Bottom-up examples of Ubuntu that enable democracy without government structures are also noted in the literature. *Stokvels* are one such instance, which are informal group saving schemes, where for example, a group of individuals contribute money monthly to a shared pool, and each member rotates to make full use of the group savings for personal

⁷⁵ Palermo (2013, p. 1052) suggests that for offenders, “restorative justice is about understanding the pain of the harm done, working through feelings of guilt, and attempting to redress the hurt and reconcile with the victim or victim’s family; for victims, it is about healing”.

⁷⁶ South Africa’s TRC model has been used in other countries, for example, Reading et al. (2016, p. 223) note that Canada’s Royal Commission on Aboriginal Peoples (RCAP) drew “inspiration from innovative international truth and reconciliation approaches to address human rights abuses happening during the same time period in South Africa and Chile”.

gain (Tshoose, 2009, p. 15). Verhoef (2001, pp. 264-273) points out that although the term *stokvel* is derived from the nineteenth-century South African term “stock fairs”, it has indigenous permeations. One is called *mahodisana*, a Sotho term meaning “to make payback to each other” and in practice, they are reserved specifically for women. She outlines how the mahodisana developed from industrial labour migration, when women accompanied men to work in the cities, and due to unstable income streams, the members made use of this type of “Ubuntu to reduce the impact of fluctuations in income”. Although the gender exclusive nature of mahodisana can be appreciated, it does challenge the perception that Ubuntu is concerned with universal rights.

Kinyanjui’s (2016, pp. 418-429) research on indigenous markets in Nairobi reveals similar stokvel practice. She suggests that such markets function as “Ubuntu solidarity nests to shape the evolution of the African metropolis, by hiring labour and investing their surplus earnings”. She also states that traders and artisans who occupy the markets have little formal education, and rather make use of a reciprocal cycle of sharing and knowledge transfer to sustain each other. In response to a city administration that criminalises, excessively taxes, and demolishes these indigenous markets, Kinyanjui counters that it is such artisans and traders that provide a means with which to “design a city that encompasses the African cultural logic, norms and values”. In this regard, Ubuntu is not only a method to manage urbanisation, but also a method to inform an authentic model of development⁷⁷.

This sub-section discussed and positioned IKS as an authentic context for the study. It introduced what is meant by IKS, how it is relevant to South Africa, and how it can function as a decolonial instrument to unpack overlooked South African knowledge. The concept of Ubuntu was introduced as the particular area of IKS that is relevant to the research problem. It was defined, African conceptions were discussed, and examples of its use in jurisprudence, dignity, nationalism, bureaucracy, and participation were unpacked. The following section introduces the conceptual framework’s second key concept: cosmopolitan theory as a normative organisation.

3.2 COSMOPOLITAN THEORY AS NORMATIVE ORGANISATION

Cosmopolitan theory is the conceptual framework’s second key concept, which establishes how normative organisation is theorised for the design and democracy study.

⁷⁷ A contemporary example of using Ubuntu as a logic of development can be found in crowd-funding models such as, Kickstarter, which helps “people work together” to make ideas a reality, and as a Benefit Corporation, it aims to “always support, serve, and champion artists and creators, especially those working in less commercial areas” (Kickstarter, 2018).

From a linguistic perspective, cosmopolitanism is derived from the combination of the Greek words *kosmos* and *polis*, where the former translates as “world or universe” and the latter as “city or polity” (Oxford, 2010d). From an etymological perspective, Wonicki (2009, p. 278) suggests that the resultant *kosmopolitês* had “not only a political but also a moral aspect”, and according to Stoic theory, it was when “a citizen of the world rejects particular polis (political dimension) in the name of universal natural right (kosmos)”. He suggests that up until today, the “notion of ‘cosmopolitan’ has apolitical character in its essence”.

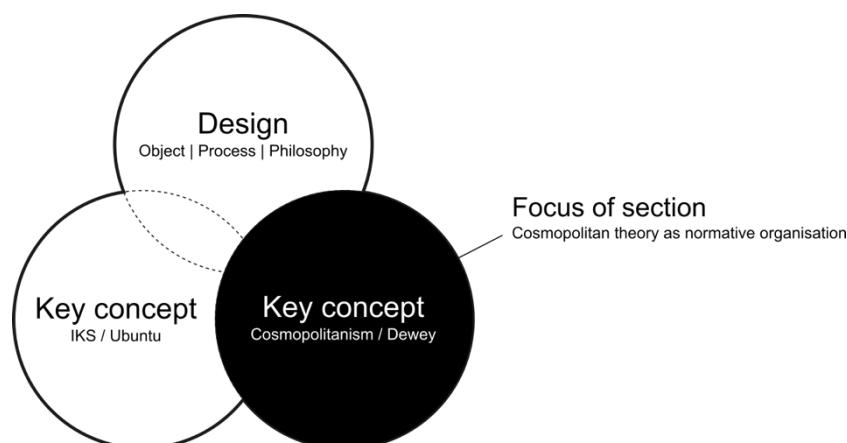


Figure 3.3: Cosmopolitan theory as normative organisation

Nussbaum (1997, pp. 9-14) provides further background on how cosmopolitanism was presented. She notes that the first-second centuries AD Stoics argued that we should “regard ourselves not as devoid of local affiliations, but as surrounded by a series of concentric circles”, and that “we should think of nobody as a stranger, outside our sphere of concern and obligation” and draw them inwards. She states that the Stoics believed that to be a “world citizen one does not need to give up local identifications and affiliations, which can frequently be a great source of richness in life”. Nussbaum provides a helpful introduction to cosmopolitanism, and the following sub-sections will discuss a particular form in detail. They will demonstrate that South Africans have been experiencing and practising forms of cosmopolitanism, both under Apartheid and in a democratic dispensation. Yet, relative to the research problem, a particular form of cosmopolitanism is required to help IKS/Ubuntu inform how designed objects, processes, and philosophy can enable South African democracy. Figure 3.3 above indicates where this argument is positioned in the conceptual framework, and the following section introduces how this location will be established using political philosophy.

3.2.1 LOCATING COSMOPOLITANISM

If cosmopolitan theory is concerned with the universal, locating a particular branch may be considered erroneous. However similar to democracy, there are numerous interpretations, which are influenced by context, culture, geopolitics, and era. This section makes use of Shook’s (2009, pp. 652-653) twelve archetypes of political philosophy, in Figure 3.4

below, to identify which forms of cosmopolitan theory are applicable to South Africa, and in turn, which should be motivated for this research on design and democracy.

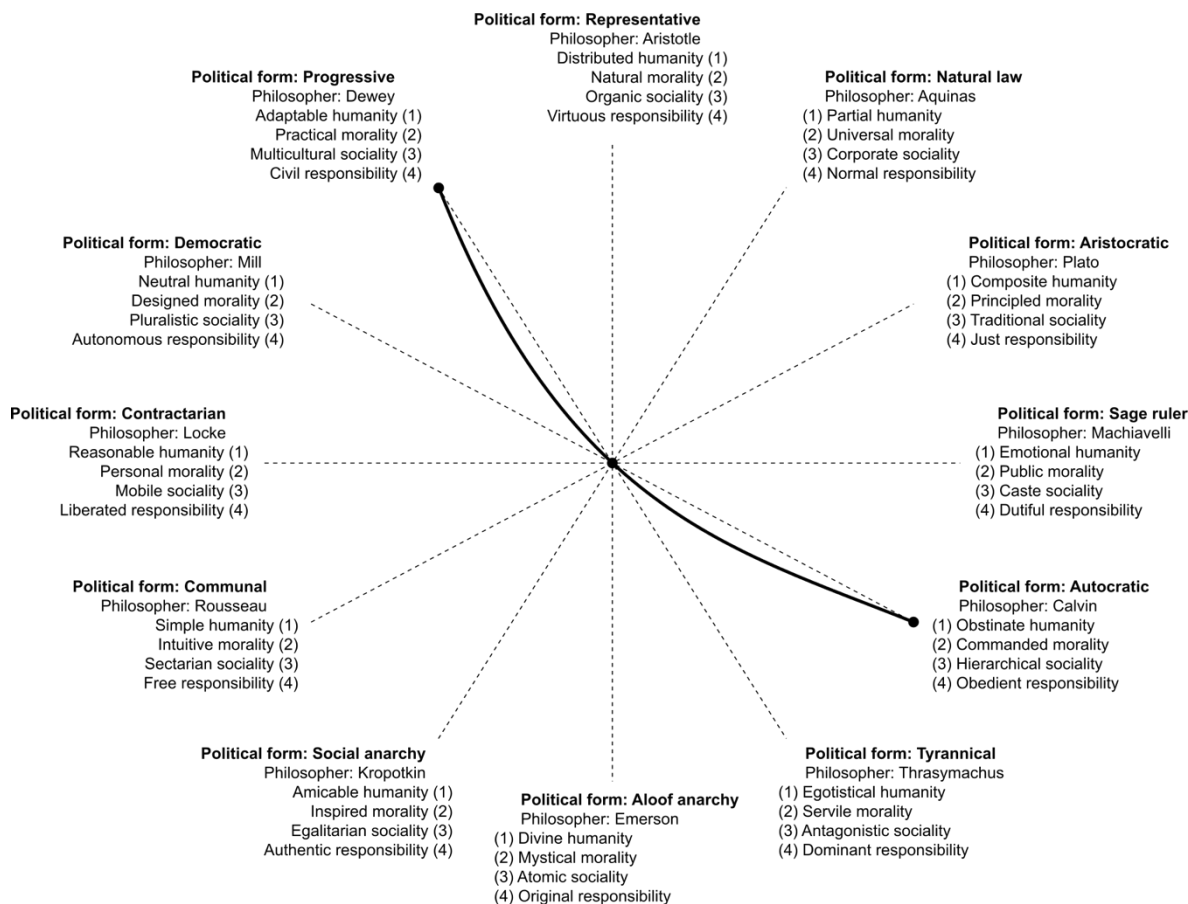


Figure 3.4: Shook's twelve archetypes of political philosophy

Shook's twelve archetypes "frame a comprehensive array of theoretically possible political forms" and provide a useful means to identify a nation's underpinning philosophical imperative. The circular composition allows "interrelations among the twelve archetypes" to be understood by reviewing how "each archetype has a diametrically opposed archetype". This layout attempts to overcome concerns of left-to-right-wing spectrums by "eliminating any favored middle position, and forcing an archetype's proponents to return to direct arguments for their views". In other words, and as discussed in Section 1.2, it breaks from the limitations of a distinctive era, and rather uses political forms and their contributing philosopher's to establish and counter arguments. As an argument, Shook (2009, pp. 633-637) reduces each political form into four essential features, as indicated in Figure 3.4 above, where each is described in terms of (1) views concerning human nature, (2) the proper function of morality, (3) the best form of society, and (4) the highest responsibility of citizenship. Using this figure, the following sub-section discusses the *autocratic political form* and why it is indicative of an Apartheid South Africa, and why a *progressive political form* is best suited to a contemporary South Africa, and consequently, the research problem.

3.2.2 AUTOCRATIC SOUTH AFRICA

Political form: Autocratic
Philosopher: Calvin
(1) Obstinate humanity
(2) Commanded morality
(3) Hierarchical sociality
(4) Obedient responsibility

Figure 3.5: An autocratic political form, underpinned by Calvin

To position an Apartheid South Africa as autocratic, is fairly nebulous, and an oversimplification of the political mechanism that repressed the majority of the population. However, if reviewed with Shook's use of Calvin (1509-1564)⁷⁸ as the contributing philosopher to an autocratic political form in Figure 3.5 above, the link to Apartheid is established through Calvinism. This is stated by De Gruchy (2011, p. 1), who traces Dutch settlement to South Africa from 1652, and notes how an accompanying "distinctive interpretation of Dutch neo-Calvinism gave a theological underpinning to the ideology of apartheid". Vosloo (2010, p. 430) provides further evidence when he notes that from the "1940s onwards the views associated with the type of Calvinism that was intertwined with Afrikaner nationalism continued to exert an influence". Lastly, More (2005, pp. 2-3) points out that Apartheid only "emerged - in its legal sense - in 1948 as a means of strengthening and perfecting an already existing system of racial discrimination" and that it "established its fortification on grounds already prepared by the first Dutch settlers in the Cape of Good Hope under Jan van Riebeeck in 1652".

Using Shook's (2009) four essential features for an autocratic political form and Calvinist imperative, traces of cosmopolitanism can be identified in the build up to the Apartheid state. His first feature for this political form is *obstinate humanity*, and in an autocratic political philosophy, it is when people "live best in fearful obedience to a supreme autocrat". In a South African context, this supreme autocrat was in religious doctrine, and as De Gruchy (2011, p. 1) notes, the "settlers were God's chosen or elect people", and the "indigenous peoples were alienated from God". Shook's second essential feature for an autocratic archetype, *morality as commanded*, is revealed in the Immorality Act No. 5 of 1927. This legislation prohibited "intercourse between Europeans and natives" and if found guilty of such intimacy, would result in "imprisonment for a period not exceeding five years" (*Immorality act*. South Africa. Senate and the House of Assembly of the Union of South Africa, 1927.).

His third feature, *sociality as hierarchical*, can be identified in both unofficial and prescribed structures. For example, the former is evident in the *Afrikaner Broederbond*,

⁷⁸ John Calvin was born and educated in France; his theological reasoning motivated that "all things were originally created by God in a perfect state" and that all "human beings are bound by their sinful nature. They must depend on God" (Coleman, 2013, pp. 400-406).

which translates to the “Afrikaner Brotherhood”. O’Meara (1977, pp. 156-159) states that it was formed in 1918 during “a time of political crisis and depression” and is associated with “poor whiteism”. He notes that although it was mobilised informally, it grew to “exert a profound influence at all levels of South African politics”. The latter prescribed social hierarchy can be found in the Bantu Education Act No. 47 of 1953 (*Bantu education act*. South Africa. Senate and the House of Assembly of the Union of South Africa, 1953.), which effectively graded knowledge to ensure that the white population obtained a privileged education. Shook’s fourth feature, *responsibility as obedient*, is explicitly found in the absence of voting rights for non-white South Africans, and in how engagement with the Apartheid state was not one of dialogue, but forced compliance.

Although Apartheid’s reductionist model is well aligned with *communitarianism*⁷⁹, the four essential features reveal that it also had cosmopolitan inclinations. For example, Nussbaum’s (1997, p. 14) comment that, unlike Kant (1724-1804)⁸⁰, the Roman Stoics considered colonial conquest to be morally acceptable resonates with Apartheid’s commanded moralities being considered virtuous. In other words, for the Dutch, appropriation and population engineering were considered God given rights. A second cosmopolitan inclination was mentioned in Section 3.1.1, regarding how the British and Dutch colonists established customary law and Bantu Self-Government. Although this was clearly a tactic towards segregation, it has traces of the Stoic allowance for local identity and affiliation to remain following occupation. Yet, it is ultimately Selzer’s (2009, p. 184) critique of the book *Middle Passage* that reveals Apartheid’s subversive form of cosmopolitanism. She notes “whites on board the *Republic* expose their inability to conceive of the Africans in terms of a shared humanity”, and their “predatory cosmopolitanism is thus the opposite of a form of ethical cosmopolitanism that would provide a basis for a cross-racial identity”.

Following South Africa’s adoption of a constitutional democracy in 1994, the acts and informal networks that supported Apartheid have largely been repealed and discredited. However, it is unrealistic to expect century old forms of normative organisation to transform along with a new dispensation. South Africa’s Calvinist inspired autocratic political form did not end with Apartheid, but is rather in a state of decline. The following section will argue in a similar manner that Shook’s (2009) antithesis of autocracy, a

⁷⁹ Vertovec and Cohen (2002, p. 8) suggest that communitarians “believe that moral principles and obligations are grounded in specific groups and contexts”, and that cosmopolitans believe “in a world governed by overarching principles of rights and justice”. O’Neill (2000, pp. 47-48) provides further clarity, noting that within communitarian theory, boundaries are formed by “categories, norms and practices of actual communities and their cultures”, and although change can occur, it is done with “insiders’ reasoning”.

⁸⁰ Immanuel Kant was born in East Prussia and his research is concerned with ethics, political philosophy and international law; he emphasized a “normative theory of international law according to which States ought to join a peace-promoting league” and also the “self-determination of people” (Kleingeld, 2012, pp. 1-3).

progressive political form underpinned by Dewey, was partly evident under Apartheid and is currently gaining prominence and relevance in a constitutional democracy.

3.2.3 PROGRESSIVE SOUTH AFRICA

South Africa's preferred political form, which is the antithesis of Apartheid, is developed using Shook's (2009) twelve archetypes of political philosophy in Figure 3.4, and his argument that diametrically opposed archetypes reflect opposing arguments. Three political forms will be discussed: democratic, contractarian, and progressive forms.

Political form: Democratic
 Philosopher: Mill
 Neutral humanity (1)
 Designed morality (2)
 Pluralistic sociality (3)
 Autonomous responsibility (4)

Figure 3.6: A democratic political form, underpinned by Mill

Shook's (2009) *democratic political form*, underpinned by Mill (1806-1873)⁸¹, is noted in Figure 3.6 above, and he places it in direct opposition to an autocratic political form. However, for the purpose of this study, this political form is incongruous with the authentic context under review. For example, Mill's particular form of liberalism, which is a defence of "individual rights, and a culture of autonomy" (Capaldi, 2004, p. 217), contradicts Ubuntu's shared rights and group culture that was developed in Section 3.1.2. In addition, Mill also defended colonisation due to the "benefits that it generated for the British state", and more broadly the perceived "value of colonization (and especially British colonization) for the world as a whole" (Bell, 2010, p. 36). As such, his worldview is in conflict with IKS and a decolonial imperative, and therefore, this democratic political form is not ideally suited to enabling a South African democracy.

Political form: Contractarian
 Philosopher: Locke
 Reasonable humanity (1)
 Personal morality (2)
 Mobile sociality (3)
 Liberated responsibility (4)

Figure 3.7: A contractarian political form, underpinned by Locke

Another opponent to an autocratic argument is Shook's (2009) *contractarian political form*, underpinned by Locke (1632-1704)⁸², which is noted in Figure 3.7 above. Mack and Meadowcroft (2014, pp. 4-24) suggest that Locke's "pivotal idea is that persons possess natural rights" which assert that "each person provide reasons for others to be circumspect in their treatment of that person". In other words, and unlike Mill, Locke acknowledges the importance of the collective, and points towards Ubuntu's humanism

⁸¹ John Stuart Mill was born and educated in England, and is a social and political philosopher whose "restatement of liberalism, including his identification of its most salient features and problems, continues to be the starting point for all subsequent discussion with the liberal tradition" (Capaldi, 2004, p. x).

⁸² John Locke was born and educated in England, and is "primarily remembered as a defender of empiricism in epistemology and of individualist liberalism in political theory" (Mack and Meadowcroft, 2014, pp. 3-8).

that was discussed in Section 3.1.2. However, his approach is nuanced as it tends to be by restraint or vigilance, and not, for example, Ubuntu's approach to incorporation of the other. Mack and Meadowcroft also note that Locke maintained that there is a *natural moral order*, which is "not created by the will of the sovereign", "provides guidance to men in the state of nature", and "limits the authority of any government created by men". Although Locke's natural moral order may resonate with Nussbaum's (2003, p. 21) suggestion that Ubuntu is a form of "harmony", it ultimately points to creationism⁸³ and a predetermined form of socialisation that is in discordance with Ubuntu's anthropocentric imperative.

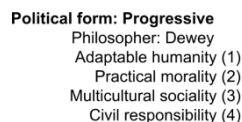


Figure 3.8: A progressive political form, underpinned by Dewey

The last political form to be discussed is Shook's (2009) *progressive political form*, underpinned by Dewey, which is noted in Figure 3.8 above. The following will argue that it is this political form and aligned philosopher that is not only suited to IKS/Ubuntu, but also points to how cosmopolitanism can address the research problem. Due to this emphasis, and although Dewey has already been introduced in Section 2.2.2, a brief outline of Dewey is provided, and each of the four essential features will be discussed in greater detail than the aforementioned political forms.

Dewey (1859-1952) was an American philosopher whose contribution to democratic theory was in response to the Great Depression and a "general readiness to experiment with the social order" (Blau, 1959, p. 7). He developed a form of "pragmatism which is often referred to as instrumentalism or experimentalism", that looked to "the most plausible explanations to a problematic situation by using creativity and insight" (Vo and Kelemen, 2014, pp. 1-24). He believed democracy must "constantly re-create itself", which "requires educating unique, creative individuals who constantly reconstruct society" (Garrison, 2012, p. 371).

Shook (2009) suggests that a progressive political form's first essential feature, *adaptable humanity*, is when "people are naturally adaptable and live best with civil rights in a progressive socialism". As an example, Macamo's (2005, pp. 86-88) research on Mozambican migrant labourers and refugees working in Apartheid South Africa, provides unique insight into the use of an adaptable humanity to mediate between tradition and

⁸³ For example, Locke believed that humans are "not determined to the same degree as other physical and biological entities, but we are beholden to God to ensure that our lives follow a certain path" (Sheridan, 2016).

modernity. He notes how these individuals had built up material status in South Africa, and in doing so, “made their integration into their traditional communities quite problematic”. To manage this incompatibility, the labourers and refugees conceptually linked material possession to a “kind of Christianity preached by the Swiss”, which introduced an adaptation of modernism that was “not a rejection of tradition”, but rather an “answer to a real problem of orientation in a rapidly changing world”. It is an example of how a political form can enable pluralism.

In a post-Apartheid South Africa, adaptable humanity is best understood when Dewey’s contribution is contextualised as a response to the Great Depression. Not only are the levels of unemployment in this period of America and a contemporary South Africa⁸⁴ comparable, but also how state backed projects are underpinned by a progressive socialism. For example, Fishback and Wallis (2013, pp. 3-4) note that America’s *New Deal* was “dominated by expediency and experiment”, had programmes in “areas of relief of the unemployed and the poor”, and had goals to “put people back to work and build social overhead capital with hopes of stimulating the economy”. South Africa’s Reconstruction and Development Programme (RDP) is arguably similar in approach when it emphasised that “employment creation is the central priority”, that simultaneously, initiatives will be used for “overcoming structural barriers to growth, including high unemployment, poor social infrastructure”, and the statement that the country “is going through a profound transformation at all levels of government and society to ensure the implementation of the RDP” (*White paper on reconstruction and development*. South Africa. Parliament of the Republic of South Africa, 1994.). Whilst the efficacy of the RDP is debatable, it does reflect how adaptable humanity can function at a national level.

It is this development focus that arguably results in Dewey emerging in the design literature, which is indicative of how humanity can be prompted or assisted to adapt to change. For example, Buchanan (1992, p. 18) aligns Dewey with design thinking, and suggests that his conception of technology in today’s terms would be concerned with the “art of experimental thinking”. DiSalvo (2009, p. 48) also notes the relevance of Dewey’s work to contemporary design theory. In particular, he suggests that Dewey’s (2012) notion that “publics are ‘constructed’” is of particular relevance to “contemporary design because it prompts a consideration of the means by which publics are assembled”, which is aligned with the “renewed interest in the intersection of technology, aesthetics, engineering, and politics”. When read with Chapter 2, these points emphasise Dewey’s applicability to the research problem.

⁸⁴ Fishback and Wallis (2013, p. 2) note that in 1932, more than 20% of Americans were unemployed, which resembles South Africa’s 2016 unemployment rate of 26,5% (Statistics South Africa, 2016b, p. 1).

The second essential feature that Shook (2009) associates with a Dewey progressive political form, is *practical morality*. He suggests that Dewey positioned morality as ideals of “human dignity” and appealed to a “community-spirited body of citizens living in organic interdependence”, which was termed “The Great Community”. Section 3.1.3 discussed the prominence of human dignity in the South African Constitution, and following this discussion, “The Great Community” arguably functions as a form of practical morality.

Dewey (2012, p. 141) defined The Great Community as a “society in which the ever-expanding and intricately ramifying consequences of associated activities shall be known in the full sense of the word, so that an organized, articulate public comes into being”. The concept of Ubuntu is arguably evident in this statement, and although Dewey does not specifically mention the person, his Great Community is singular, and similar to the effect of persons, it is developed into being by external pluralities. Of interest, Letseka (2013, p. 356) makes a direct parallel between an earlier work of Dewey (1916) and Ubuntu. He notes that Dewey’s comment of “what one is as a person is what one is as associated with others, in a free give and take intercourse” is similar to the “traditional African feature of communal interdependence”. It is also of interest to note that Dewey had a relationship with South Africa, and visited the country in 1934 (Martin J. , 2003, p. 337).

Yet, for the purpose of this sub-section, it is practical morality that triangulates Dewey, Ubuntu, and cosmopolitan perspectives. For example, Pogge’s (1992, p. 49) moral cosmopolitanism appears to resonate with Dewey and Ubuntu. He describes it as when “all persons stand in certain moral relations to one another: we are required to respect one another’s status as ultimate units of moral concern”. Another example is from Ngcoya (2015, p. 255) by way of opposition, who argues that Ubuntu is an antithesis of Kantian cosmopolitanism with its preoccupation with “rational and regulative ideals for freedom” and “wherein a human being is an autonomous subject, worthy of respect as a rights-bearing creature”. The following will also indicate incongruity between Kantian and Deweyan worldviews.

The third essential feature for a Deweyan progressive political philosophy is a *multicultural sociality*, which Shook (2009) suggests is evident when “social groups overlap in various ways, because people enjoy being members of multiple groups, and they should freely share cultural ways to enhance their individuality”. In a post-Apartheid South Africa, the very idea of multicultural socialising is justifiably a unique requirement, and in order to appreciate the relevance to the research problem, the following discusses it from a structural and normative perspective.

From a structural perspective, multicultural socialising is partly addressed in the constitution in areas ranging from recognising diverse languages and epistemologies, such as the role of traditional leadership. Yet, it is the South African Constitution itself that can also be regarded as multicultural. Davis (2003, p. 191) notes that it has been “modeled largely on the Canadian Charter of Rights and Freedom, with liberal borrowings from Germany and the United States of America”. Hatchard (1994, p. 77) proposes a consolidation of these two views and describes the document as a “compromise document agreed to by South Africans of very different political persuasions”. In this regard, the Constitution is both a form of multicultural socialising, and a cosmopolitan artefact.

From a normative perspective, the very idea of using culture to enhance individuality can be contested. Gikandi’s (2000, p. 12) paper on pan-Africanism and cosmopolitanism, suggests that the “invention of tradition was also one of the most important ways in which Africans sought to escape the colonial economy of representation”. Appiah (1997, p. 619) develops this point further with the notion of parasitic cosmopolitanism and concerns of “disappearance of cultural heterogeneity”. He suggests that as “forms of culture disappear, new forms are created” and if created locally, they have “regional inflections that the cosmopolitan celebrates”. These points are notable if read with IKS/Ubuntu, and although they have been positioned as an authentic context throughout Section 3.1, they can also be construed as a colonial form of representation.

When communities are considered aspirational, a multicultural sociality straddles a fine line between cultural appreciation, expression, and appropriation. For example, Cohen (2003, p. 62) notes cosmopolitanism’s propensity for “exoticism”, where tourists who demand home comforts whilst on holiday can dilute indigenous cultures. Conversely, yet equally contested, Renée (2005, p. 366) discusses how ethnotourism is a “glossy finish to how a pristine culture looks in the global marketplace”. Matthes (2016, pp. 347-351) notes that when “members of dominant cultural groups speak on behalf of members of marginalized groups”, they can insinuate that the “marginalized group have no special credibility with respect to their experience”. Although these points are by no means original, they demonstrate the power dynamics built in cosmopolitan multicultural sociality. They are of particular relevance to a South African context, which is arguably only recently experiencing true multicultural sociality. Similarly, if IKS/Ubuntu are considered authentic for this study, cognisance of essentialist and concealed expressions need to be taken into account.

This fourth and remaining essential feature for a Deweyan progressive archetype, is *civil responsibility*. Shook (2009) suggests that Dewey advocated for “supreme responsibility of

civility from all citizens” and in doing so, foresaw “a cosmopolitan theory of political obligation at a global level”. Hansen (2009, p. 131) points out that Dewey wrote that a “cosmopolitan community constitutes a viable and productive ideal” and is a mode of “interacting or transacting between self, other, and world”. Bray’s (2009, p. 691) reading of Dewey notes a “normative approach to democracy”, where Dewey distinguishes between “democracy ‘as a social idea’ and ‘political democracy as a system of government’”. He continues to highlight how Dewey believed that the “idea of democracy is a wider and fuller idea than can be exemplified in the state even at its best”. In this regard, Dewey differs to cosmopolitan perspectives such as Held (1992, pp. 12-39) and his preoccupation with “global order” and an “interconnected global legal system”⁸⁵. In addition, Dewey does not argue for transnational institutions, which Vertovec and Cohen (2002, p. 9) suggest aim to establish “frameworks and institutions that bridge or overtake conventional political structures of the nation-state system”.

For Dewey, civil responsibility at a global level is within the practical reach and informality of the individual. For example, he notes that “progress is not automatic; it depends upon human intent and aim and upon acceptance of responsibility for its production” (Dewey, 1916, p. 315). It is also arguable that Dewey is not concerned with enacting civil responsibility, but rather articulating it. Binder et al. (2015, p. 9) allude to this point from a participatory design perspective, and note that if the “design activist’s emphasis on the articulation of issues” is read from a Deweyan experimental democracy perspective, the results “may invigorate citizenship as a productive figure of agency in collaborative design”. In other words, rather than civil responsibility expressed in legislation or similar structures, bottom-up experiments may stimulate the wish to participate, and in turn articulate what civil responsibility is, and how it can be acted on.

Yet, if the discussion in Section 3.1.2 is revisited, in an African context, the articulation and dimension of civil responsibility is ambiguous. Ubuntu, being a sub-Saharan concept, is equivalent to an overarching informal transnational institution, yet it is also similar to the Deweyan grounded ambit of human agency. On the one hand, this can be argued to be historic and in-line with Kraxberger’s (2012, p. 103) comment that African countries are “colonial inventions with minimal or no pre-colonial territorial precedence”. In other words, if no delineated countries can be claimed to have existed in sub-Saharan Africa, and if Ubuntu is pre-colonial, it cannot be positioned as transnational. However, on the other

⁸⁵ Held’s approach is exemplified in the International Criminal Court (ICC), and is perhaps supported by Spiro (2005, p. 1261) who argues that “globalization is changing the nature of community ties and individual identity” and “brings the state down from its pedestal, removing positivist assumptions of authority”. Yet, in a similar manner, the ICC is criticised for assuming authority as Occident. For example, the ICC’s President of the Assembly of States Parties acknowledged that the “criticism levelled at the ICC is that it is against Africa and only African nationals are being prosecuted and tried” (ICC, 2016, p. 1).

hand, it is possible that Ubuntu can be described as a form of indigenous cosmopolitanism, and as an example of how civil responsibility can operate consecutively above and under state agency.

This sub-section discussed and positioned cosmopolitan theory as normative organisation for the study. It introduced what is meant by cosmopolitanism, and why it is increasingly gaining relevance. A Deweyan interpretation of cosmopolitanism was established as being applicable to the research problem, by firstly reviewing the autocratic political form that underpinned Apartheid South Africa, and then the opposing arguments and political forms - democratic, contractarian, and progressive. Where applicable, the synergies and tensions with IKS/Ubuntu were discussed.

3.3 SUMMARY OF FINDINGS

This chapter unpacked two key concepts that were identified as being fundamental to addressing the research problem in a South African context. The following summarises the findings of the chapter, and then revisits the conceptual framework to discuss how both literature reviews, Chapter 2 and Chapter 3, have answered the research questions.

The first key concept that was unpacked in this chapter was Indigenous Knowledge Systems (IKS) as an authentic context. It was argued to be evident in South African communities, research agendas, legislation, and considered a significant epistemology. The impact of foreign occupation on IKS was nuanced, and although colonisation and Apartheid may have discounted the knowledge of indigenous communities, the manner in which society was categorised under separate development, may have inadvertently conserved or essentialised IKS. It is the search for authenticity within such ambiguity that is indicative of decolonisation. The concept of Ubuntu was introduced as the particular area of IKS that is applicable to the research problem. Variations of Ubuntu were noted to cover a sub-Saharan footprint, all of which alluded to the notion of being becoming, anthropocentrism, and humanism. It was through a discussion of Ubuntu's role within jurisprudence, dignity, nationalism, bureaucracy, and bottom-up participation, that its relationship to agonism was introduced. In other words, Ubuntu is not a passive abstraction or a state-of-being, but rather a resource that can be employed during times of struggle.

The second key-concept that was unpacked in this chapter was cosmopolitan theory as normative organisation. The chapter paid specific attention to distinguishing between various forms of cosmopolitanism, and to why a particular interpretation is applicable to a contemporary South African context. Although this is in-line with critical inquiry, it is also in

response to much of the design literature that tends to select cosmopolitanism to suit a predefined argument. In this regard, it was through deliberating Apartheid South Africa's autocratic underpinning political form and the antitheses thereof, that a Deweyan interpretation of cosmopolitanism as normative experimentation was established. Figure 3.9 below revisits the thesis' conceptual framework to discuss the implications of the two key concepts relative to Chapter 2, and in doing so, reflects on how the literature review has addressed the research questions.

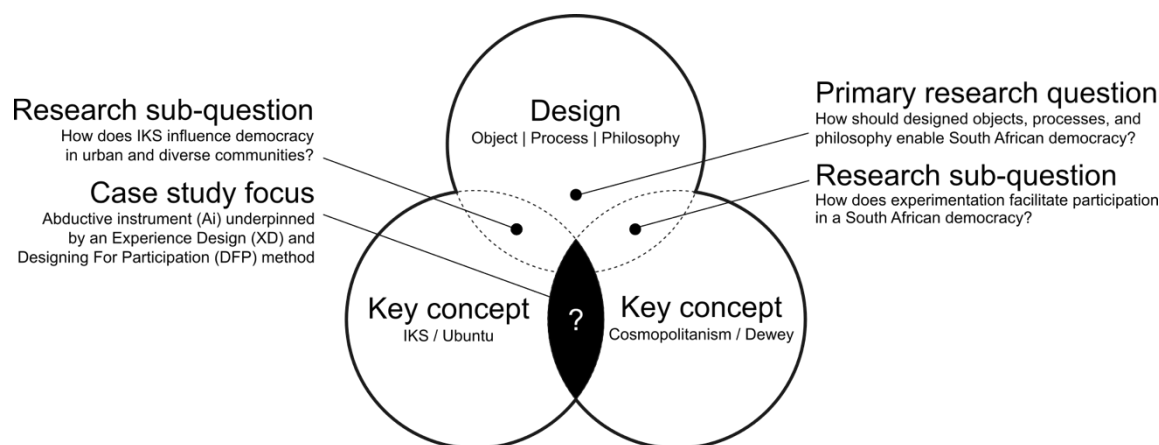


Figure 3.9: Conceptual framework

The primary research question examines how designed objects, processes, and philosophy should enable South African democracy. Chapter 2 provided the main body of literature to answer this question, and due to Chapter 3 providing further insight, it is discussed in this summary. Although many of the arguments presented in Chapter 2 are Occident in origin, they do apply to South Africa in lieu of it being a dual economy⁸⁶. This is of particular relevance to contemporary and covert design methodologies, and to how the country's industrial and telecommunications infrastructure can both enable and hamper notions of democracy.

- However, if historicism and the designed environment are considered, South Africa is distinct from the representing countries and authors in Chapter 2. This is not in argument, but rather in scale. For the majority of South Africans, Apartheid clarified the question of artifacts having politics, and in a contemporary South Africa, it is arguably a question of why do certain artifacts persist with a certain political imperative. On the one hand, this is representative of the structural legacy of Apartheid and contemporary failures in service delivery. Yet, from a design and democracy perspective, it is also suggestive that *inducing change with design activism may be limited in South Africa*. Chapter 4 will indicate how in-depth interviews with key informants from, for example,

⁸⁶ From an economics perspective, a dual economy has been suggested to inhabit "asymmetry in the productive relations" primarily between an "advanced or modern sector" and a "backward or traditional sector" (Jorgenson, 1961, p. 311).

the City of Cape Town (CoCT) municipality and non-profit activist organisations, will help clarify this point.

- The intersection between the two key concepts in Figure 3.9 is illustrated with a question mark. This indicates that the literature review notes a relationship exists between IKS and cosmopolitanism, but from a design and democracy perspective, *data is largely undeveloped*. Although the intersection between the two key concepts is not the focus of this study, the conceptual overlapping of this intersection with designed objects, processes, and philosophy suggest that it needs to be taken into account. Chapter 4 will argue that an abductive logic of enquiry is suited to obtaining data for this largely unknown intersection.
- The first sub-question unpacks how IKS influences democracy in urban and diverse communities, and due to the particular focus, this entails Ubuntu. Its location in the conceptual framework is at the intersection of the broad design and democracy literature review and the left-hand key concept. On the one hand, it can be argued that in South Africa, Ubuntu provides an established mechanism with which to distribute agency in both formal and informal communities, such as legal judgements that ensure access to urban residence, and collectives that allow gender equity during urbanisation. However, it can also be argued that these examples form interpretations of a broader administrative function, be this in the form of legal proceedings, restorative justice, or group saving plans. In this manner, *proxy sanctions Ubuntu*, be it in the form of a magistrate, perpetrator, or account holder. This is not to discount the severity of application, but rather to highlight that Ubuntu is partly buttressed, and is not operating within a singular epistemology.
- Although interpretations of Ubuntu by proxy and use within administration are not problematic, it is arguably modest, and not necessarily representative of the scope of IKS. Such an argument is both decolonial and academic in the sense that if Ubuntu is to be considered authentic and valuable, its value should ideally be isolated from boundary influences. This is a demanding requirement for an epistemology that is under-researched, oriented towards humanism and anthropocentrism, and associated with agonism. In other words, separating a subjective interpretation during conflict is entangled with ethical, logistical, and measurement concerns. However, Chapter 4 will demonstrate that interpreting and measuring Ubuntu is within the scope of design processes; it will motivate for an Abductive instrument (Ai) method as being appropriate to interpreting and measuring the authenticity of Ubuntu in a contemporary urban environment. It will also establish that in this role, *design does not function as a proxy, but rather as an enabler of Ubuntu*.

- The second sub-question examines how experimentation can facilitate participation in a South African democracy, and builds on the Deweyan interpretation of cosmopolitan theory as normative organisation. Its location in the conceptual framework is at the intersection of the broad design and democracy literature review and the right-hand key concept. This chapter argued that a progressive political form, underpinned by Dewey, is aligned with the context and needs of a contemporary South Africa. The very idea of experimenting with publics is an ethical concern, and within South Africa, it may be associated with Apartheid's social engineering. However, this form of experimentation is autocratic and subversive, and not progressive and collective. Although this distinction acknowledges *the role of an underpinning political philosophy for experimentation*, it also points to how an underpinning logic of enquiry reveals intent. For example, Apartheid used a deductive logic of enquiry to edge the population towards a particular standpoint, and Dewey advocates for abduction for collective learning⁸⁷.
- Section 2.2.4 discussed the relationship between participatory design and democracy. It discussed how participatory design addresses instances where individuals or communities are excluded, or be used to generate new knowledge through collective agency. Perhaps due to the exclusionary nature of Apartheid, the former option is well established in a democratic South Africa, and perhaps due to the lack of wider design literacy, the latter is underdeveloped. From a Deweyan experimental perspective, the option of *using participatory design to generate knowledge is preferred*. Chapter 4 will demonstrate how a Designing For Participation (DFP) method and a designed object can interpret Ubuntu, and do so in a manner that measures public agency.

⁸⁷ Of interest Prawat (1999, pp. 50-51) makes a direct correlation between Dewey, Peirce, and learning. He suggests that the "process of abduction is intimately connected to the unique role that Peirce and Dewey assign to ideas as carriers of meaning in their theory" and that "once ideas connect with objects and events, they are capable not only of illuminating facts but also of being illuminated by facts".

CHAPTER 4 RESEARCH DESIGN AND METHODOLOGY

An orphaned calf licks its own back.

Kamba proverb, origination date, and author unknown

Sourced from Wa-Kiawa (2010, p. xix)

The history of a colonised nation is interpretive. With occupation comes social constructivism; what was once established and passed down from generation to generation, is familiar no more. In the proverb above, the orphaned calf is an allusion to South African society. It is an accurate reflection of how the Apartheid regime severed family ties, and how in the current dispensation, a lack of leadership resulted in child-headed households. The calf is also figurative, and representative of how an African narrative is located within the design and democracy research. In other words, if it is to regain a position in the world, it has to start from rebuilding foundations, and possibly without support from other nations.

The purpose of this chapter is to outline the research design and methodology for the design and democracy fieldwork. It is organised into seven sections; the first is the overarching research rationale, which outlines what further data is required to inform the two key concepts, and how an urban case study with a mixed-method and two fieldwork phases will obtain such data. The second section discusses issues of measurement, and explains which instruments have been used to obtain data. The third section details the sample design. The fourth section discusses data collection methods and fieldwork practices, such as the logistics of gaining participation for the experiment, and in turn, how ethics and consent were obtained. The fifth section discusses how data was captured and prepared for analysis, and the sixth section discusses how this data was analysed using ATLAS.ti and SPSS software packages. The final section is a discussion of known research shortcomings and sources of error.

4.1 RESEARCH METHOD RATIONALE

This section discusses the research method rationale underpinning the design and democracy fieldwork. It outlines the fieldwork focus, how a potentially insurmountable study was delineated, and why a progressive focusing was used to obtain in-depth data.

4.1.1 EMPIRICAL DATA FOCUS

Table 4.1 below outlines the fieldwork focus, which is a cataloguing of the literature review summary in Section 3.3. Each row denotes an empirical data focus, a corresponding

literature review section reference where this omission was established, and lastly when data is obtained, which research question is addressed.

Table 4.1: Empirical data focus relative to the literature review and research questions

Empirical data focus	Literature review reference	Question
1. Design is framed and defined using various abstractions	Chapter 2	Primary
2. South African definitions of design are missing	1.2 Background to the research problem	SQ1
3. Awareness of government led design initiatives is growing	2.3.2 National and international perspectives	SQ2
4. Democracy as a model of organisation is constantly evolving	3.2.3 Progressive South Africa	SQ2
5. Rights and justice can be expressed as universal models	3.2.1 Locating cosmopolitanism	SQ2
6. Nation-state borders are increasingly porous and circumvented	3.1.2 The concept of Ubuntu	SQ1
7. Lifestyles and livelihoods are increasingly pluralist and contradictory	2.3.1 Individual and community perspectives	SQ1
8. Material based outcomes can assist with mediating public engagement	2.1 Design and democracy related to objects	SQ2
9. Institutionalised forms of democracy are inherently biased	2.2.4 Participation within design and democracy	SQ2
10. Participation can be experienced as an active or passive process	2.2.3 Inducing change with design activism	SQ2
11. Delineations between notions of public and private remain contested	2.2.1 Historicism and the designed environment	SQ1
12. Public understandings of how to engage leadership are inadequate	2.2.4 Participation within design and democracy	SQ2
13. Cultural diversity is positioned as both an opportunity and threat	2.3.2 National and international perspectives	SQ1
14. Normative aspirations should ultimately inform policy	3.1.1 Locating indigenous knowledge systems	SQ1
15. Synthesising IKS to legislation is complex and contested	3.1.3 Ubuntu as democracy	SQ1

As the table indicates, the primary research question, which concerns how designed objects, processes, and philosophy should enable South African democracy, is indicated with row number 1, and Chapter 2. The first sub-question (SQ1), which concerns how IKS may influence democracy in urban and diverse communities, is indicated in row numbers 2, 6, 7, 11, 13, 14, and 15. The second sub-question (SQ2), which concerns how experimentation can facilitate participation in a South African democracy, is indicated in row numbers 3, 4, 5, 8, 9, 10, and 12. The table and the numbers for each empirical focus point will be used in Section 4.2, in order to disclose the motivations behind each instrument design.

4.1.2 ETHNOGRAPHIC CASE STUDY

The literature review demonstrated that design and democracy research varies in abstraction, and can be articulated with designed objects, processes, and philosophy. In addition, it varies in scale and can focus on the individual, community, or national imperative. Although such dynamics limit what can be credibly researched within the available time and logistics of a PhD, an ethnographic case study method is arguably suited to investigating such dynamism. For example, Mouton (2001, pp. 149-150) suggests that an ethnographic case study can uncover in-depth descriptions guided by general ideas and not a hypothesis. His application is suited to the exploratory and emergent nature of the design and democracy research. Yin (2009, p. 2) provides further

motivations for a case study approach. He notes that case studies are the preferred method “when (a) ‘how’ or ‘why’ questions are being posed, (b) the investigator has little control over events, and (c) the focus is on a contemporary phenomenon within a real-life context”. His criteria aligns with the design and democracy research as (a) all the questions are “how” enquiries; (b) democracy being a societal construct places it outside the immediate control of the researcher; (c) South Africa’s fledgling democracy and design focus is a contemporary and real-life phenomenon.

4.1.3 THE CASE STUDY DELINEATION

The research problem and questions guided the ethnographic case study design. In other words, the case study should be indicative of the research problem and reveal a decrease in South African democracy. For the primary research question, it should exemplify or have the potential therefore, to discuss how designed objects, processes, and philosophy can enable democracy. For the first sub-question, it should have South African instances of colonisation, Apartheid, democracy, and if possible, IKS. For the second sub-question, it should provide the affordance to experiment with participation. Such criteria were found to be in the Cape Town urban environment, called Long Street. It is highlighted in Figure 4.1’s map view (Google Maps, 2015) below. The noted features, which are associated with the research problem and questions, are discussed below.



Figure 4.1: Case study geographic delineation

One the one hand, Long Street is analogous to environments such as London’s Soho, New Orleans’ Bourbon Street, and Amsterdam’s red light district. It is a central, historic⁸⁸, and entertainment centric environment. On the other hand, it is the density and extent of multi-usage that is of particular interest to the study, as it provides an environment to

⁸⁸ Numerous buildings in Long Street are protected under the National Heritage Resources Act No. 25 of 1999 (Heritage Western Cape, n.d.).

research and experiment with competing agencies. For example, the religious structures, such as a Church (1) and two Mosques (2 and 3), are nestled between bars, clubs, and restaurants. The district covers two Cape Town epochs, where Cape Town's first settlement and subsequent reclaimed ocean and operational shipping dockyard (4), meet at Strand (Beach) Street (5). The street is a common site for activism and demonstrations, either targeting or canvassing state institutions such as the Western Cape High Court (6), Western Province Legislature (7), Good Hope Subcouncil (8), the South African Revenue Service (9), and the Public Protector provincial office (10). Some environments are particularly conducive to decadent tourism, or the intersections (11) between Diaspora and predatory tourism⁸⁹. Corporate business interests tend to cluster in one area (12) and are partly promoted by the International Convention Center (13). Practically, the case study is located close to public transport (14 and 15) and therefore, provides access to diverse socio-economic groups. The feature (16) is the installation of a fieldwork instrument, which will be discussed in Section 4.3.4. As a introduction, Figure 4.2 below reveals some of the contradictions and tensions in Long Street at street level.



Figure 4.2: Long Street

⁸⁹ Robinson (2006, pp. 53-54) suggests that women and children comprise eighty-percent of the world's refugees, and make use of "sex work" as one of the few means of survival. A South African Western Province migration study (Boaden, 2002, p. ii) suggests that twenty to thirty thousand migrants reside in the Western Cape, and most of these individuals move to Cape Town to seek economic opportunities.

4.1.4 TWO FIELDWORK PHASES

As the previous sub-section intimated, the case study delineation has a layered and complex narrative. In order to understand how design can enable democracy in this environment, and how IKS and participation are related, the fieldwork was implemented as two separate consecutive phases. This is a progressive focusing approach similar to the literature review, where the first phase is concerned with exploring notions of design and democracy, and the second phase, explicating a specific area. This allows broader agencies to be mapped without favouring a particular imperative. Figure 4.3 below provides a visual overview of this process, and indicates how Chapter 4 is related to the two literature reviews on the left, and the two fieldwork phases on the right. Similarly to the focused literature review being derived from the broad review, the second phase of fieldwork is causal to the first phase.



Figure 4.3: Primary research overview

The first phase of fieldwork is concerned with key informants who have a recognised authority to influence the case study delineation. Section 4.2.4 details who these individuals are, and why they are representative of the case study delineation. Data from these key informants helps clarify how designed objects, processes, and philosophy are used to enable democracy in the case study delineation, and if IKS and experimental participation form part of their mandate. Their contribution is attitudinal, primarily qualitative, and obtained using surveys, in-depth interviews, and fieldwork photography. The outcomes from this phase are discussed in Chapter 5 as *key observations*. They indicate, for example, that Ubuntu is often personally defined to facilitate dismissal, that South Africans have yet to understand what comprises a public, that participation can be used as a strategic tool to mitigate organisational risk, and that design activity is believed to be a recent South African phenomenon.

The second phase of research focuses on a specific key observation titled “responsive publicisation”, which concerns the need for South Africans to proactively generate publics. Using this focus, the phase collects quantitative data on how design can enable democracy when underpinned by IKS/Ubuntu. In this manner, the focus is not on

individuals holding agency, but rather on how design can be employed to afford agency. This phase is an experiment⁹⁰, which uses an Experience Design (XD)⁹¹ method, a Designing For Participation (DFP) method, and a designed object, all of which are outlined in detail in Section 4.3.4. The outcomes from this phase are discussed in Chapter 6 as *key claims*. They indicate, for example, that design may have a greater impact on influencing rights and justice of individuals born in non-Occident countries, that design may reduce the favour of another culture, lifestyle, and choice influencing individuals between twenty and twenty-nine years of age, and that design can dramatically influence a preference for a community's behaviour to drive government policy.

If the two fieldwork phases are read collectively, they exemplify transdisciplinarity and abduction. The first phase is primarily based on theory, and the second phase, on experimental practice. It is the surprises and anomalies from the second phase, which provide data with which to develop new theory, and inform design and democracy research. The following section discussed the fieldwork sample design.

4.2 SAMPLE DESIGN AND SAMPLING METHOD

The following sub-sections outline the sample design and sampling methods that were used for the design and democracy fieldwork.

4.2.1 UNIT OF ANALYSIS

The broad and multi-layered nature of design and democracy suggests that a single unit of analysis may not accommodate diverse case study agencies. Yin (2009, pp. 50-53) supports this view when he posits that a single case design with one unit of analysis may be “conducted at an unduly abstract level, lacking sufficiently clear measures of data”. As an alternative, he proposes an *embedded single case study* design with *multiple sub-units* of analyses, which “add significant opportunities for extensive analysis, enhancing the insights into the single case”. This approach has been selected for the design and democracy fieldwork to cater for the diverse groups that occupy Long Street. With this in mind, the embedded single case study and primary unit of analysis is Long Street; and five sub-units, which are derived from the case study delineation in Section 4.1.3, are noted in Table 4.2 below.

⁹⁰ Babbie (2007, p. 222) defines an academic experiment as the review of an independent variable on a dependent variable, where the independent variable provides an experimental stimulus that can be present or absent.

⁹¹ Search (2009, p. 50) suggests that Experience Design (XD) concerns the “creation of cognitive and affective models that define personal identity through dynamic relationships” and when participant’s “create their own reality through memory and exploration”.

Table 4.2: Sub-units of analysis

Sub-unit	Qualifier	Relevance to research problem
Academia	Professor	Understand how empirical research is being framed and carried out in urban studies and African cities.
Design profession	Qualified and practising	Understand how designers perceive public actors and how they design for public environments.
Local business	Own a business in Long Street	Understand how socio-economic factors and agencies influence the case study delineation.
Public administration	Executive in a state aligned entity	Understand how state aligned organisations and individuals frame design, IKS, and public participation.
Public benefit	Non-profit Organisation (NPO)	Understand how public aligned organisations perceive designer agency in government projects.

4.2.2 SAMPLING METHOD

Two sampling methods have been employed for the primary research and to cater for the two fieldwork phases. The first phase makes use of a non-probability purposive sampling method, and the second phase, a non-probability quota sampling method⁹². Where the former represents the sub-units and their key informants that influence the case study, the latter represents the local and international individuals who occupy and frequent the case study. For both sampling methods, no psychometric tests were implemented to ascertain respondent capabilities.

4.2.3 POPULATION

The case study delineation provides activities and services to actors who may not reside or work in the area, but do frequent it. In addition, these actors may be South African, foreign nationals, illegal immigrants, or international tourists. The population therefore encompasses individuals who reside beyond the case study delineation and live within the Cape Town Metropolitan Municipality⁹³, and also those individuals who are temporarily visiting the case study area.

4.2.4 SAMPLE CHARACTERISTICS

Sample characteristics for the first phase of fieldwork comprised key informants who were at the helm of their organisation or occupation at the time of the fieldwork. They were specifically canvassed due to their influence on public agencies, experience with public design projects, involvement in the WDC2014, or advocacy for human rights. Although their names cannot be divulged due to consent confidentiality agreements, they hold

⁹² Babbie (2007, pp. 184-185) describes non-probability purposive sampling as when the “units to be observed are selected on the basis of the researcher’s judgment about which ones will be the most useful or representative”, and describes non-probability quota sampling as when “units are selected into a sample on the basis of prespecified characteristics”.

⁹³ In 2007, and for an area of 2,461 km², the size of the population in Cape Town is estimated to be approximately 3,5 million (CoCT, 2012)

executive positions such as professor, director, Chief Executive Officer (CEO), and mayoral committee member (Mayco).

The academic key informant came from the African Centre for Cities (ACC), which is an “interdisciplinary research and teaching programme focused on quality scholarship regarding the dynamics of unsustainable urbanisation processes in Africa” (ACC, 2017). The design professional key informants came from multiple sources. Formula D interactive, who “make learning accessible to all using interactive technologies, specialised knowledge of game design and human-centred experiences” (Formula D interactive, n.d.), ID&B, whose “creative process is driven by curiosity and meaning” and who aim to “investigate and debate the underlying principles” (ID&B, n.d.). Infestation, who focus on “combining powerful strategic insight with maximum creative impact” (Infestation, 2016). Makeka Design Lab, whose vision is to “create a world and future where responsible, sustainable, practical and aesthetically pleasing design that responds to its context is a basic human right” (Makeka Design Lab, n.d.). Pedersen + Lennard, who see “good design as a sustainable tool to grow our local economy and create a momentum of opportunities for others to be part of” (Pedersen + Lennard, n.d.). The Design Cradle (TDC), whose mission is to “promote design solutions and design thinking methodologies to achieve positive social and economic impact that will transform the lives of all citizens” (TDC, 2013). Two design participants requested to remain completely anonymous. The local business key informants came from Select Books and Clarke’s Books, both of which have existed in Long Street for many years.

The public administration informants also came from multiple sources. The Cape Town Partnership (CTP), which is an “organisation that brings people together around common goals for Cape Town’s transformation” (CTP, n.d.). The Central City Improvement District (CCDI), which is a public-private partnership with a “vision for the Cape Town CBD to rise from the ‘crime and grime’ scenario it had fallen into, to once again become a safe, clean and caring urban environment” (CCID, n.d.). The City of Cape Town (CoCT), which is the metropolitan municipality in which the case study is located. The public benefit key informants came from the African Arts Institute (AFAI), whose objective is to “promote participatory democracy, respect for fundamental human rights and freedoms and equitable social and human development in African countries” (AFAI, 2014), and the Social Justice Coalition (SJC), who campaign to “advance the constitutional rights to life, dignity, equality, freedom and safety in the lives of all people” (SJC, n.d.).

Sample characteristics for the second phase of fieldwork comprised individuals in the vicinity of the Abductive instrument (Ai) experiment, whose installation (16) in Long Street is noted in Figure 4.1’s map. The position was chosen due to the concentration of

representative sub-units in the area, and the observed high pedestrian traffic. Gender was the only characteristic to drive sample quota, and selection was randomly based on participants being in the vicinity of the experiment.

4.2.5 SAMPLE SIZE

The sample size for the first phase of fieldwork was twenty-one participants, and derived from the category and depth of data that was required. This resulted in, for example, the academic sub-unit requiring only one participant, and other sub-units, multiple participants. The sample size for the second phase of fieldwork was two hundred participants. This sample size was determined by data saturation. Data analysis was run parallel to the fieldwork, and when frequency distributions for participant demographics remained consistent, sample size was established.

4.2.6 FIELDWORK DURATION

The duration of the fieldwork was from 2013 to 2016 and specifically planned to overlap with Cape Town's World Design Capital 2014 (WDC2014) and South Africa's general elections. Although both occurred in 2014, planning and public deliberations leading up to the events started in 2013, and discussion of their resultant impact continued to be discussed well after they had finished.

4.3 ISSUES OF MEASUREMENT

The following sub-sections outline the instruments used for the two fieldwork phases, and each instrument is discussed in the sequence in which it was employed.

4.3.1 RESEARCH PLATFORM

The fieldwork was facilitated with an online research platform setup on the domain name www.designdemocracy.org. For the first phase of research, it functioned as a public-facing website to reveal the core focus of the design and democracy research, and to openly disclose intent in a potentially contested research subject. A password-protected private section was included to assist with the dissemination and receiving of confidential data from research assistants and participants. For the second phase of research, the platform was redesigned to support a data collection interface, and to automatically collate and store this data.

4.3.2 PHOTOGRAPHIC OBSERVATIONS

Photography of the case study delineation was carried out to support, refute, and deepen participant data. Table 4.3 below indicates the criteria that guided scene selection, and

what supporting information was captured with each photograph. Examples of this supporting information are provided in APPENDIX E.

Table 4.3: Case study observation criteria

Criteria	Description
Scene selection brief	The images that are chosen to be uploaded should always contain a human element and must always be photographed in Long Street, which is the focus of this study. It is also important that the photographs be of authentic, and not staged, interactions. It is the subtle and fleeting interactions and day-to-day life in Long Street that I am most interested in.
Guiding keywords	The following keywords should convey the content and tensions I am looking to understand: diversity versus conformity, conflict versus consensus, change versus heritage, freedom versus oppression and anger versus laughter.
Sample focus	To help identify content, look to the following individuals, organisations, objects, buildings and scenes for content: politics, religion, business, residents and entertainment.
Supporting information	Please do not touch-up or convert the image to grey-scale In YYYY-MM-DD format, please indicate the date of taking the photograph. In HH-MM format, please indicate the time of taking the photograph. In # Street format, please indicate the location of the photograph. Please provide three keywords that best describe this photograph. What was occurring that motivated you to take this photograph? What occurred behind-the-scene and not captured in the photograph?

4.3.3 PHASE 1: QUESTIONNAIRE AND INTERVIEW

The first phase of fieldwork collected data from the twenty-one key informants with two instruments: a pre-interview questionnaire and an in-depth interview. The questionnaire served two purposes: firstly, it gave the participants an understanding of the type of research being conducted, and secondly, it gave the interviewer insight on how the participants framed design and democracy. The questionnaire is provided in Table 4.4 below, and comprises eighteen Likert scale statements, for each statement the corresponding empirical data focus from Table 4.1 is provided. These motivations were not disclosed to the participants.

Table 4.4: Pre-interview questionnaire and empirical data motivation

	Questionnaire Likert statement	Empirical data motivation
(a)	Most examples of design can be pointed to or looked at	1. Design is framed and defined using various abstractions
(b)	South African design can be seen all around us	8. Material based outcomes can assist with mediating public engagement
(c)	Design can only be understood by looking in a dictionary	2. South African definitions of design are missing
(d)	Government can set a definition for design that can be used by the population	2. South African definitions of design are missing
(e)	You have developed a personal definition of design that works for you	1. Design is framed and defined using various abstractions
(f)	Cape Town is trying to understand design as a problem-solving approach	3. Awareness of government led design initiatives is growing
(g)	Forms of democracy are possible now, that were not a couple of decades ago	4. Democracy as a model of organisation is constantly evolving
(h)	Culture and tradition disappear when democracy increases	15. Synthesising IKS to legislation is complex and contested
(i)	Democracy is about universal principles of rights and justice	5. Rights and justice can be expressed as universal models

Questionnaire Likert statement	Empirical data motivation
(j) Patriotism is important to making democracy function	5. Rights and justice can be expressed as universal models
(k) A country's democracy can be influenced by other countries and organisations	6. Nation-state borders are increasingly porous and circumvented
(l) A government and the people it serves are one and the same	9. Institutionalised forms of democracy are inherently biased
(m) A person can have multiple, and sometimes competing, loyalties in a democracy	7. Lifestyles and livelihoods are increasingly pluralist and contradictory
(n) Discussing issues is more important than discussing ideologies such as liberalism	12. Public understandings of how to engage leadership are inadequate.
(o) It is only in process, and not just ideas, that democracy can be realised	10. Participation can be experienced as an active or passive process
(p) Democracy is about wanting, and not only tolerating, cultural diversity	13. Cultural diversity is positioned as both an opportunity and threat
(q) A country's unique history should inform how its democracy is practised	14. Normative aspirations should ultimately inform policy
(r) People need to specifically learn how to practice democracy	14. Normative aspirations should ultimately inform policy

Following completion of the pre-interview questionnaire, the in-depth interviews were carried out. Unlike the pre-interview questionnaire, which made an explicit distinction between design and democracy, the in-depth interview questions made allowances for participants to proactively explore transdisciplinarity. This was considered important for depth of data, in that it allowed tensions and opportunities between sub-units to be unpacked and documented. The in-depth interview is provided in Table 4.5 below, and comprised six questions. For each question, interview prompts and motivations for including the statement in the research, relative to the empirical data focus in Table 4.1, are included. In both cases, neither were disclosed to the participants.

Table 4.5: Interview questions, prompts, and empirical data motivation

Question and prompts	Empirical data motivation
How would you describe Long Street as a social environment? What interactions may be unique to the street? National and international similarities? What social tensions / conflicts have you encountered in the street? Identify lesser-known social tensions? What expressions of consensus have you encountered in the street? How has this consensus been achieved?	4. Democracy as a model of organisation is constantly evolving. 5. Rights and justice can be expressed as universal models 6. Nation-state borders are increasingly porous and circumvented. 13. Cultural diversity is positioned as both an opportunity and threat.
How would you describe Long Street as a designed environment? As ostensive, lexical and stipulative approaches? If participant focus, explore others? How are individual and community space demarcated? Legal and illegal implementations? Which designs have enabled unique social inceptions to develop? Designs, which have conversely restricted?	1. Design is framed and defined using various abstractions. 2. South African definitions of design are missing. 8. Material based outcomes can assist with mediating public engagement.
How has Long Street as a whole developed over the last two decades? Who has spearheaded this development? Proactive and reactive agencies? What international influences are prevalent? Tease out post-colonialism and decolonisation? What South-African-centric influences are prevalent? Within Apartheid and indigenous knowledge?	4. Democracy as a model of organisation is constantly evolving. 6. Nation-state borders are increasingly porous and circumvented. 7. Lifestyles and livelihoods are increasingly pluralist and contradictory.

Question and prompts	Empirical data motivation
What forms of leadership are prominent in Long Street? How is this leadership legitimised? Is this formal or informal leadership? How is this leadership enacted? Legislated, coerced or motivated for? How is this leadership implemented? Transparent, consensus making?	9. Institutionalised forms of democracy are inherently biased. 11. Delineations between notions of public and private remain contested. 12. Public understandings of how to engage leadership are inadequate.
How could notions of Ubuntu be incorporated into Long Street? How do you understand Ubuntu? Where did you gain insight on Ubuntu?	14. Normative aspirations should ultimately inform policy. 15. Synthesising IKS to legislation is complex and contested.
How do individuals and communities participate in the development of Long Street? What qualifies an individual, or community, to participate? From a denizen and homeless perspective? What type invitations have you received to participate? From whom and how was it provided? What participatory examples are evident? As they transitory or permanent?	3. Awareness of government led design initiatives is growing. 8. Material based outcomes can assist with mediating public engagement. 9. Institutionalised forms of democracy are inherently biased. 10. Participation can be experienced as an active or passive process.

4.3.4 PHASE 2: QUESTIONNAIRE AND ABDUCTIVE INSTRUMENT

The second phase of fieldwork collected data from two hundred participants with two instruments: a questionnaire and what is being termed as an *abductive instrument*. Although these instruments technically operated together, for the purpose of this sub-section, they are introduced as separate instruments. The questionnaire obtained data from the case study delineation in order to understand the key observation - responsive publicisation - which concerns the need for South Africans to proactively generate publics, the rationale of which is discussed in Section 5.4. The questionnaire is provided in Table 4.6 below, and comprises six political statements, two politics questions, six participant demographic variables, two built environment questions, and a participation control check. Motivations for including the question in the research relative to the empirical data focus in Table 4.1 are included, and similarly to the pre-interview questionnaire, they were not disclosed to the participants.

Table 4.6: Questionnaire variables and empirical data motivation

Political statement	Empirical data motivation
I am ok with another country influencing my rights and justice	5. Rights and justice can be expressed as universal models
I am ok with my country making its border more open to foreigners	6. Nation-state borders are increasingly porous and circumvented
I am ok with doing things that contradict my principles or beliefs	7. Lifestyles and livelihoods are increasingly pluralist and contradictory
I am ok with getting involved in creating government change	10. Participation can be experienced as an active or passive process
I am ok with other cultures, lifestyles, and choices, influencing me	13. Cultural diversity is positioned as both an opportunity and threat
I am ok with a community's behaviour driving government policy	14. Normative aspirations should ultimately inform policy
Politics	Empirical data motivation
My political outlook can best be described as	4. Democracy as a model of organisation is constantly evolving
In the last election, I voted for	4. Democracy as a model of organisation is constantly evolving

Participant demographics	Empirical data motivation
My country of residence is	6. Nation-state borders are increasingly porous and circumvented
My country of birth is	6. Nation-state borders are increasingly porous and circumvented
My occupation is	7. Lifestyles and livelihoods are increasingly pluralist and contradictory
My gender is	Required for the non-probability quota sampling method
My age is	7. Lifestyles and livelihoods are increasingly pluralist and contradictory
I come to Long Street for (Please pick most prominent one)	Required to assist in triangulating findings to the first phase of fieldwork
Built environment	Empirical data motivation
I feel CCTV cameras in Long Street should be turned	8. Material based outcomes can assist with mediating public engagement
I feel security lighting in Long Street should be turned	8. Material based outcomes can assist with mediating public engagement
Participant control	Empirical data motivation
Is this your first time using the Design + Democracy application	If the participant selected yes, contribution would not be recorded.

An abductive instrument was designed to operate with the questionnaire above. In its simplest form, and for the purposes of the design and democracy research, the abductive instrument attempted to create an experience in which an individual could reflect on their relationship to public agency. It is an example of how abduction, as introduced in Section 1.4.2, can be operationalised to deliberately create surprises that can be measured. Within this philosophical reasoning and logic of enquiry, the designed object is termed an abductive instrument. Technically, the abductive instrument allowed each participant to unsuspectingly assert agency onto the case study's built environment. In addition, it allowed each participant to be subject to their own agency, and ultimately, an ability to reflect on their expressed, assumed, or subconscious agency. In order to understand why an abductive instrument was chosen, and how it was conceived, the experiment's use of an Experience Design (XD) and Design For Participation (DFP) method are discussed.

Experience Design (XD) is described by McLellan (2000, pp. 60-66) as concerning "brushing together ideas from a wide array of disciplines" and using these ideas to facilitate "theory-building". In this regard, it has a notable relationship with transdisciplinarity. Drawing on the work of Pine and Gilmore (1999) and Fogg (1999), McLellan suggests that "persuasive technology" can be used as a tool to "increase abilities", as a social actor to "create relationships", and as a medium to "provide experience". In discussing types of experience, she notes two considerations that are applicable to the research questions. The first, is determining if the user's relationship with the experience is observed or internal; the second, is determining if the user's participation with the experience is active or passive. It is the idea of a persuasive technology that firstly points to the abductive instrument, in that it attempts to increase the participant's abilities, relationship, and experience within and with the case study's built

environment. This can be further developed with the research questions. For example, due to the first sub-question being concerned with the intimacy of Ubuntu, the abductive instruments attempt to stimulate an internal relationship, and due to the second sub-questions being concern with participation, it allows an active experience to be realised.

Design For Participation (DFP) was discussed in Section 2.2.4. It was suggested not to be concerned with participation as a response to exclusion, but rather as a method that can be used to inform or inspire individuals and communities who have agency, but lack critical awareness of its impact. Bilson (1995, pp. 19-20) discusses designing for participation as being at the intersection of *interaction design*⁹⁴, audience participation, and community building. He describes seven common design threads of participatory experiences, which are then positioned as tactics that can be applied to a variety of applications. Three tactics resonate with the design and democracy research. The first, is to use “improvisation as a growth path” and to allow participants to be “drawn into the activity on a deeper level”; the second, is to “encourage personal and physical expressiveness” when participants are “expressing themselves within the structure of the situation”; the third, is to “acknowledge the individual” as this will increase participation because people feel that their “presence is acknowledged, and their input is being heard”. Relative to the research questions, these tactics provided a guide with which to design the Abductive instrument (Ai), and to operationalise Ubuntu and participation.

Two forms of artefact are mentioned in the aforementioned Table 4.6, under the sub-heading built environment - CCTV cameras and security lighting. Read with the XD and DFP methods, these artefacts function as Ai persuasive technologies to deepen participant interaction during the second phase of fieldwork. The choice of these types of artefacts over numerous options, is based on findings from the first phase of fieldwork and supporting literature. Section 5.3.4 will reveal how notions of public safety and security have a conflicted relationship with leadership, authority, and management of the case study environment. It reveals how neoliberalism, and the demands of a mixed-use environment, distort the clear categorisation of victim and perpetrator. From an artefact perspective, the use of CCTV cameras to survey for crime, and security lighting to deter crime, is notable in the design and democracy literature.

For example, an objection to CCTV cameras is stated by Oberwelt (2008), who developed a device to “protect against protection” in public spaces. They designed a head worn

⁹⁴ The United States Department of Health and Human Services (2018) defines “interaction design”, also written as Interaction Design (Ixd), as being concerned with “creating engaging interfaces with well thought out behaviors”, and that “understanding how users and technology communicate with each other is fundamental to this field”.

device that projects “infrared light disrupting the reception of infrared surveillance cameras”, and in the resultant footage, a “sphere of light covers the face of the person under surveillance”. Their artefact is of relevance to both design activism and DIY, as discussed in Section 2.2.3, as it “can be made by anybody; no special skills are required”. It is from such examples that a CCTV camera is used as a persuasive technology for the second phase of fieldwork, in order to provoke and stimulate a semiotic of surveillance.

The use of security lighting is mentioned in the literature. Two London Home Office reports reveal the ambiguous relationship between street lighting and crime. The first report is based on the effect of large-scale lighting improvements in Wandsworth (Home Office Crime Prevention Unit, 1991). It concludes that “improvements to street lighting can help to reduce the public’s fear of crime, but that they make less of a difference to the prevailing level of crime than many people would expect”. The second report is a meta-analysis of eight American and five British evaluation studies (Home Office Research, Development and Statistics Directorate, 2002). It concludes that “improved lighting led to decreases in crime”, however, it also notes that a “theory of street lighting focussing on its role in increasing community pride and informal social control may be more plausible than a theory focussing on increased surveillance and increased deterrence”. It is from such literature that security lighting is used as a persuasive technology for the second phase of fieldwork, in order to provoke and stimulate semiotics of pride, control, and deterrence. The following introduces how the Ai as a designed object, and how the use of a CCTV camera (Surveillance) and security lighting (Deterrence) technology was practically employed as a persuasive technology with which to research the key observation - responsive publicisation.

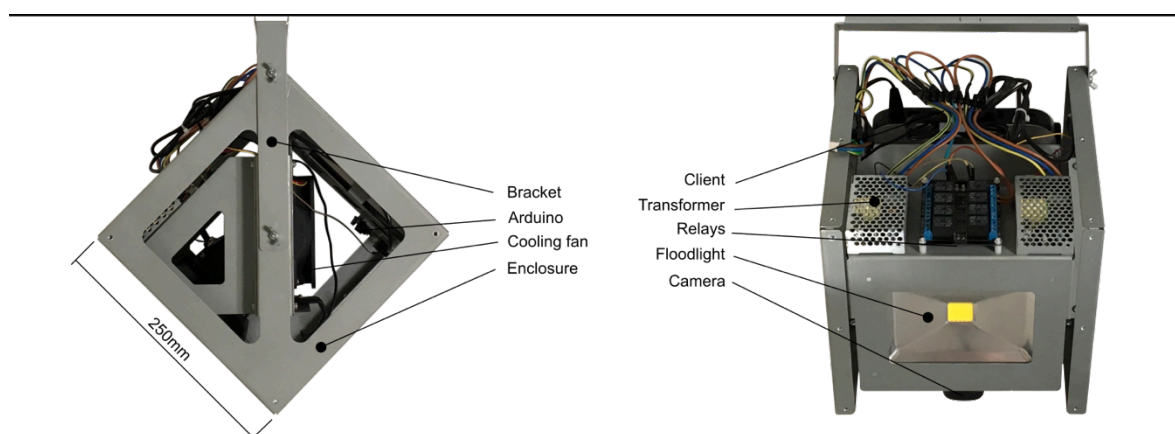


Figure 4.4: Abductive instrument (Ai)

The Abductive instrument’s (Ai) main hardware components are detailed in Figure 4.4 above, and a more comprehensive system overview and an example of code are provided in APPENDIX A and APPENDIX B respectively. The instrument is in a cube shape and was mounted in the case study five metres off street level, out of the participant’s field of

view. Of importance to abduction and creating a surprise that can be measured, this covert position helped prevent the camera (Surveillance) and floodlight (Deterrence) from being prematurely detected by the participant. Figure 4.5 below is a schematic of how the instrument was installed, and used by the fieldworker and participant.

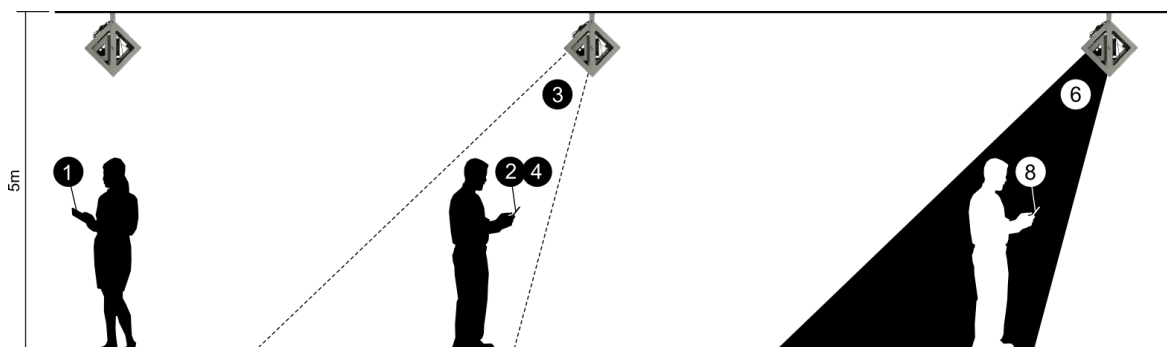


Figure 4.5: Abductive instrument (Ai) usage

The sequence of usage was as follows: (1) fieldworker recruits a participant; (2) participant is handed a tablet with an information sheet, and consent form; (3) unknown to the participant, the abductive instrument is initialised, and the camera and floodlight primed; (4) participant completes the full questionnaire as outlined in Section 4.3.4; (5) if the participant selects OFF to both the built environment questions, the research concludes and the tablet is returned to the fieldworker; (6) if either built environment question is selected as ON, the corresponding persuasive technology is activated and projected onto the participant, which includes the camera (Surveillance) and/or the floodlight (Deterrence); (7) at this point, and relative to XD, the participant's relationship to the built environment has been internalised, and the participation activated; (8) the questionnaire's six political statements are again completed by the participant, and when finished, an optional comment section completed. The fieldworker answers any further questions, thanks the participant, concludes the interview, and resumes canvassing.

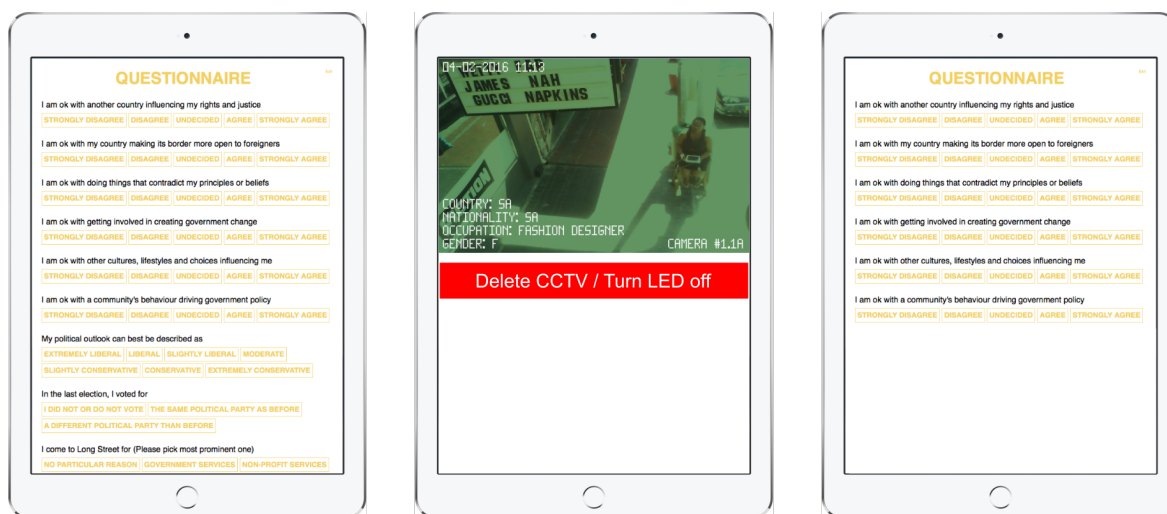


Figure 4.6: CCTV styled photograph and participant view

Figure 4.6 above indicates how comparative data was collected from the participant viewpoint. Read from left to right; (1) the participant completes the full questionnaire; (2) if applicable, the persuasive technology is activated, and the participant is either flooded within a high-intensity floodlight, and/or presented with a colour graded photograph of themselves composited with their personal demographics; in all cases, the participant is required to turn the floodlight off and/or delete the photograph before proceeding; (3) the participant repeats the questionnaire's political statement section. It is this political statement data, which was obtained before and after having used the Ai, that fulfils the experiment's comparative data requirement. As an experiment, this data is used to measure how design, when underpinned by Ubuntu and participation, allowed participants to reflect on their relationship to public agency.

The Ai is only intended for a once-off experiment. Although the aesthetic of the Ai may suggest otherwise, for example the use of metal components, this design intent is based on two other factors. The first is structural, and that the enclosure was required to support and orientate electronic components five metres off the group in a public environment. Although other materials, such as plastic or cardboard, could have provided a similar function, sheet metal provided a higher factor of safety in the event of design failure and pedestrians being injured. The second factor is semiotic, and aimed to relay an industrial or impersonal aesthetic to the respondent. This is similar to the design of the photograph mentioned above, which when shown to the participant, functioned as a persuasive technology to provoke and stimulate a semiotic of surveillance.

Of importance to an abductive logic of enquiry, the Ai must have a priori obsolescence or lack of repeatability. This can be argued by returning to the discussion in Section 1.4.2, specifically Potter's (2006, p. 86) interpretation of abduction as involving "naturally occurring surprises or deliberately creating them". If a participant is made aware of the experiment, or the Ai's underpinning methodology, which could occur if it is used again in a public setting, the resultant data will be contrived, and outcomes ultimately found to be questionable.

4.3.5 PILOTING

All instruments were piloted to ensure they did not contain unintentional ambiguity, leading questions, or response effects⁹⁵. The phase one instruments were piloted with a participant who was aligned with both a design professional and public administration sub-

⁹⁵ Response effects refer to those differences in survey outcomes that arise from poorly articulated questions, requiring respondent to remember information among other mental processes (Tourangeau, Rips, and Rasinski, 2000, p. 2).

unit. This allowed multiple perspectives to be obtained in one pilot. The phase two instruments were piloted in the case study delineation, with a particular focus on the abductive instrument. Piloting tested installation, discoverability, repeatability, and the potential for database tampering⁹⁶.

4.4 DATA COLLECTION METHODS AND FIELDWORK PRACTICE

The following sub-sections outline the data collection methods and fieldwork practices that were used for the design and democracy fieldwork.

4.4.1 RESEARCH ASSISTANTS

Six fieldwork assistants were used for the fieldwork, either for data collection or data capturing. For the first phase of fieldwork, two assistants photographed the case study delineation, and provided a means with which to observe and collect evidence in a manner that was not contrived to suit interview findings. Due to the author residing in, and being highly familiar with, the case study delineation, the use of assistant photographers provided a renewed perspective of the street, and an opportunity to document unforeseen and overlooked phenomena. Three assistants transcribed the first phase of fieldwork, and helped prepare the twenty-one in-depth interviews for data analysis. For the second phase of fieldwork, one research assistant operated the abductive instrument and questionnaire. Due to the use of a non-probability quota sampling method, a fieldworker was a factor considered to be of importance in recruiting participants and obtaining authentic data. Simply stated, the assistance of a black South African female helped obtain data that a middle-aged white male South African male may not have been privileged to. This is not an endorsement of racial stereotyping, or to downplay fieldworker competencies, but is rather an acknowledgment that the author may have been perceived as being from a generation that supported Apartheid, and consequently, avoided in a study concerned with contemporary South African democracy. The decision to effectively hide the author in the second phase of fieldwork is partly validated in Section 6.1, when a participant only agreed to contribute due to the fieldworker being black.

4.4.2 GAINING RESPONDENT PARTICIPATION

For the first phase of fieldwork, the research was introduced as a university study, and introductory telephone calls, follow-up emails, and the online research platform helped

⁹⁶ The questionnaire was designed to be accessible through a password-protected login. The PHP form was validated to remove spurious code, and each fieldwork recruitment drive was run under a PHP session variable. Each case was accompanied with a timestamp and Internet Protocol (IP) address. If the data did not correspond with the field researchers recruitment hours or the device collating the participant responses, the case would be identified as suspicious and potentially a SQL injection. In this regard, no entries had been tampered with.

gain respondent participation. Figure 4.7 below is the public-facing area of the online research platform. If interest was shown in the research, the participant was directed to a secure area, which provided an information sheet, and requested an individual or organisation consent form to be completed. Each could be reviewed and submitted at the participant's leisure, which helped motivate high-calibre and busy individuals to contribute to the research. As awareness of the research grew, the platform also provided a means with which to recruit unanticipated⁹⁷ key informant contributions. All participation for the first phase of fieldwork was voluntary, and no incentives were provided.



Figure 4.7: Phase 1 recruitment instrument

The second phase of fieldwork gained respondent participation by recruiting pedestrians within the case study delineation, at the site where the Ai was installed. In order to assist with recruitment, financial incentives had been planned, however exceptional fieldworker competencies resulted in such incentives not being required. Consent forms for the first and second phases of fieldwork are indicated in APPENDIX C.

4.4.3 INTERVIEW DATES AND SETTINGS

For the first phase of fieldwork, participant interview dates and settings were negotiated, with a focus on catering for participant availability and preferred interview location. In one instance, the software Skype was used to interview a prominent Cape Town community activist, who was overseas at the time of the fieldwork. For the second phase of fieldwork, research was carried out on a Thursday and Friday, from 09h00 to 17h00. It was planned to maximise the possibility of coinciding with individuals who may have been arriving to, departing from, or taking a lunch-break in the case study delineation.

⁹⁷ One uncanvassed design professional made contact through the website and, due to the participant's background resonating with the research problem and questions, was formally incorporated into the first phase of research and provided access to the password-protected section of the research platform.

4.4.4 FILE MANAGEMENT AND DATA LOGGING

For the first phase of fieldwork, file management and data logging were facilitated with three separate password-protected areas of the online research platform. The first was allocated to the twenty-one research participants to allow them to submit their consent and pre-interview data. The second was allocated to the two photography assistants for the uploading of case study images and supporting information. The third was allocated to the three assistants transcribing the in-depth interviews, in order for them to obtain the initial audio files and, in turn, to upload the transcriptions. Where applicable, assistants were required to select a tick-box indicating that all information that they planned to upload would remain confidential, and that any copies that may have generated would be deleted. For the second phase of fieldwork, the abductive instrument automatically collated logs and participant data to a password-protected area of the research platform. For all fieldwork phases, data was downloaded and removed from the platform at regular intervals, and where applicable, the Open University's Virtual Private Network (VPN) was used to archive data.

4.4.5 ETHICS AND CONSENT

The primary research complied with the "Code of Practice for Research at The Open University" (Open University, n.d.) and the "Ethics Principles for Research Involving Human Participants" (Open University, 2006). Due to the primary research being implemented outside of the United Kingdom, ethical considerations regarding respondent participation were cognisant of South African law, and if not legislated, an acknowledgement of cultural sensitivities was employed. All data provided by respondents were subject to their acceptance of a digital consent tick box. No data was publicly disclosed without a participant's prior written consent, and for thesis citations, respondent names have been replaced with codes to conceal identity.

4.5 DATA CAPTURING AND EDITING

The following section outlines the processes employed when capturing and editing the fieldwork data, how the in-depth interviews were transcribed, how data was captured and cleaned, and what measures were employed to minimise error.

4.5.1 INTERVIEW TRANSCRIBING

Interview transcriptions were initially completed by the author, and then allocated to three fieldwork assistants. Figure 4.8 below provides an example of an abridged transcription with supporting information and guidance notes.

Strictly confidential, please do not distribute electronic copies or print-out hard copies

RESPONDENT: FRI002

INTERVIEWER: Byron Qually

TRANSCRIBER: Iman Latief

INTERVIEW DATE: 20130830

TRANSCRIBED DATE: 20131021

CHECKED DATE: 20131117

NOTE: please ensure that all respondent and interviewer comments are captured in the format below. It is not just the spoken word that is of interest, but also the manner in which comment are expressed. Please include all hesitations with [...], notable background sounds and expressions with [Add sound/expression here], slang and colloquialisms as stated, and do not correct any grammar under any circumstances. If in doubt add your comments with brackets [Your comment] and please fell free to call Byron Qually on 082 555 1909.

RESPONDENT

0:00:03

No, it's a pleasure. I actually really enjoy it, taking time to reflect and just get a perspective, it's nice. It's a luxury in the average busy day.

Figure 4.8: Abridged interview transcription

4.5.2 CAPTURING AND CLEANING DATA

Cleaning and capturing of fieldwork data was carried out in a manner that did not manipulate source data. For the first phase of fieldwork, the following equipment and software was used to capture and clean the data: the pre-interview data was captured in Microsoft Excel and no cleaning was required; photography was captured with a Nikon D3100, a Nikon D700/D600, and an Apple iPhone 5s, and in some instances, contrast was adjusted on certain fieldwork photographs using GIMP 2.6.11 GNU License in order to reveal as much detail as possible; lastly, the in-depth interviews were captured with a Sony PCM-D50 audio recorder, and interviewee audio volume was enhanced with GarageBand, Apple Inc. For the second phase of research, data was captured with an Apple iPad Air and an Oracle MySQL database. Figure 4.4, in Section 4.3.4, indicates what Ai electronic components helped captured fieldwork data.

4.5.3 MEASURES TO MINIMISE ERROR

For the first phase of fieldwork, the following areas attempted to minimise error: the pre-interview questionnaire and interview instruments were piloted, appropriately qualified⁹⁸ research assistants were utilised, and where possible, the case study photography was used to affirm key informant claims. For the second phase of fieldwork, the following areas pertaining to internal invalidity⁹⁹ attempted to minimise error: the abductive instrument and questionnaire were piloted, to encourage a uniform sample a short period was

⁹⁸ At the time of their contribution, two of the transcribing assistants had qualifications in social science and print journalism, and one transcriber was applying for university. The photography assistants had qualifications in photojournalism and anthropology.

⁹⁹ Babbie (2007, p. 230) describes internal invalidity as referring to the “possibility that the conclusions drawn from the experimental results may not accurately reflect what went on in the experiment itself”.

experimented with, the research site was randomly visited to inspect operational setup and usage, daily fieldworker debriefing sessions were held, and ultimately not claiming that the results of the experiment are generalizable to a larger population.

4.6 DATA ANALYSIS

This section outlines the methods and procedures used to analyse the fieldwork data. The coding procedure and analysis method is detailed for each of the fieldwork phases.

4.6.1 PHASE 1: CODING AND INTERPRETATIVE METHOD

Evidence for the first phase of fieldwork comprised a questionnaire dataset, transcribed interviews, case study photographs, and fieldwork memos. The qualitative data was open-coded using the software package ATLAS.ti. Two approaches were considered when coding the data; the first was a bottom-up or grounded approach, and the second, a top-down or theoretically driven approach¹⁰⁰. The former, which develops code categories from the data itself, was initially employed, and although notable observations emerged, they did not specifically address the research problem. The latter, which develops code categories using predefined criteria, allowed insights to emerge within the confines of the research problem, and was ultimately deemed best suited to the research. Practically, the top-down coding approach was implemented as follows:

- *Code categories* were derived from the pre-interview questionnaire and interview questions outlined in 4.3.3. Each code category, either literally or interpretively, captures the essence of Table 4.4 and Table 4.5. Using this approach, not only are the code categories confined to the research problem, but also as noted in each table, traceable to the omission of design and democracy data in the literature review, and in turn, the empirical data focus.
- *Quotation search terms* were derived from the research questions, transcribed interviews, and case study photography. Important to depth of enquiry, the transcriptions and photographs were exhaustively re-read and re-viewed, and if quotation search terms were identified as being applicable to the research problem, but not collatable under a predefined code category, a new code category was created.

Table 4.7 below indicates these code categories and search terms which comprised the coding process. The asterisk adjacent to certain terms indicates that a prefix or suffix has

¹⁰⁰ The bottom-up and top-down approach to coding data in ATLAS.ti was informed by Friese (2013).

been included. For example, a search for “privat*” would include the term “private” and “privatised”. An example of the open-coding process is in APPENDIX D.

Table 4.7: Code categories and quotation terms

Code category	Quotation search terms
Access	privat* public*
Agency	connect* *cultivat* disabl* enabl* engag* *participat* *partner*
Change	*develop* gentrifi* progress* solution*
Compare	*authentic* *differ* fake* novel unique* same *similar* varia*
Context	global* local* *national* village* provinc*
Democracy	*democra*
Design	*design*
Interaction	*agree* crim* tension* *contest* conflict* consensus *desire* fight* *force*
Law	code* constitution* *law* *legal* regulat* rights
Leadership	leader* *respons* *sustain*
Protect	*escape* *guard* *protect* *safe* *secur*
Relation	commun* individual*
Status	citizen* civi* denizen* homel* immigra* refug*
System	Apartheid *colonial* indigenous
Ubuntu	ubuntu*

Following the completion of the open coding process, an axial coding process was implemented again using ATLAS.ti. Each code was developed into a network view, which as Figure 4.9 indicates, is a diagram showing the relationship between codes, interview quotations, and details in the case study photography. The network views facilitated identification and conceptualised of causal relationships between data, which if considered pertinent to the research questions, were triangulated into key observations. This process continued until no further codes or network views could be formed.

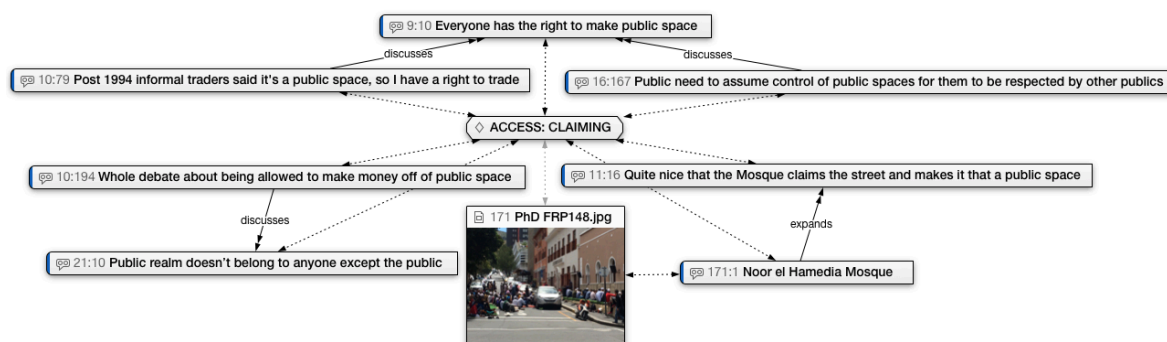


Figure 4.9: Network view example with code, interview quotations, and case study photography

4.6.2 PHASE 2: CODING AND ANALYSIS METHOD

Evidence for the second phase of fieldwork comprised two questionnaire datasets and fieldwork memos. The quantitative data was coded using the software package SPSS. Table 4.8 below indicates how the questionnaire was coded according to question,

variable, attribute, and measure. The second set of political statements is noted with an abbreviation for abductive instrument (Ai). The attributes for all of the five-point Likert scale questions were: strongly disagree, disagree, undecided, agree, and strongly agree. For this scale, an ordinal measure was selected over an interval ratio to acknowledge that the difference between the five attributes is not strictly uniform, and is rather what Greasley (2008, p. 8) suggests as “approximate”.

The political view PolView scale is comprised the following seven attributes: extremely liberal, liberal, slightly liberal, moderate, slightly conservative, conservative, and extremely conservative (NORC, 2017, p. 258). No uniform relationship existed between these attributes, and a nominal measure was chosen as it “represents different categories” (Greasley, 2008, p. 7). The attributes for the occupation variable were sourced from the Standard Occupational Classification (ONS, 2010, pp. 6-7) major groups. Group 1 were managers, directors and senior officials; Group 2 were professional occupations; Group 3 were associate professional and technical occupations; Group 4 were administrative and secretarial occupations; Group 5 were skilled trades occupations; Group 6 were caring, leisure and other service occupations; Group 7 were sales and customer service occupations; Group 8 were process, plant, and machine operatives; and Group 9 were elementary occupations. An additional Group 0 was included in this variable for the unemployed and the students who participated.

Table 4.8: Questions, variables, attributes, and measures

Question	Variable	Attributes	Measure
Political statement 1	Another country influencing my rights and justice	Five-point Likert scale	Ordinal
Political statement 2	My country making its border more open to foreigners	Five-point Likert scale	Ordinal
Political statement 3	Doing things that contradict my principles or beliefs	Five-point Likert scale	Ordinal
Political statement 4	Getting involved in creating government change	Five-point Likert scale	Ordinal
Political statement 5	Other cultures, lifestyles, and choices influencing me	Five-point Likert scale	Ordinal
Political statement 6	A community's behaviour driving government policy	Five-point Likert scale	Ordinal
Politics 1	My political outlook can best be described as	Seven point PolView scale	Nominal
Politics 2	In the last election, I voted for	Same, different, or do not vote.	Nominal
Participant demographics 1	My country of residence is	As provided.	Nominal
Participant demographics 2	My country of birth is	As provided.	Nominal
Participant demographics 3	My occupation is	Ten SOC major groups	Nominal
Participant demographics 4	My gender is	Male, female or other	Nominal
Participant demographics 5	My age is	Decade separator	Nominal
Participant demographics 6	I come to Long Street for (Pick most prominent one)	Five sub-units	Nominal
Built environment 1	I feel CCTV cameras in Long Street should be turned	On or off	Nominal
Built environment 2	I feel security lighting in Long Street should be turned	On or off	Nominal
Political statement 1 (Ai)	Another country influencing my rights and justice	Five-point Likert scale	Ordinal
Political statement 2 (Ai)	My country making its border more open to foreigners	Five-point Likert scale	Ordinal
Political statement 3 (Ai)	Doing things that contradict my principles or beliefs	Five-point Likert scale	Ordinal

Question	Variable	Attributes	Measure
Political statement 4 (Ai)	Getting involved in creating government change	Five-point Likert scale	Ordinal
Political statement 5 (Ai)	Other cultures, lifestyles, and choices influencing me	Five-point Likert scale	Ordinal
Political statement 6 (Ai)	A community's behaviour driving government policy	Five-point Likert scale	Ordinal
Timestamp	Time at which the questionnaire was started	Day / Month / Year/ Hour / Minute	Scale
IP address	The device from which the questionnaire was accessed	Ten character number	Nominal

The second phase of fieldwork was analysed using descriptive statistics¹⁰¹ in SPSS. The sample's characteristics were revealed using univariate analyses, which describe a single variable. Each of the sample's demographic, politics, and built environment variables were plotted onto a graph. This revealed frequency distributions, notable patterns, and potential sample bias. The sample's political statements were analysed using bivariate analyses, which describe relationships between variables. The first answer to the political statement at the start of the experiment is the independent variable, and the political statement Ai at the end of the experiment, is the dependent variable. The relationship between the two is described with a graph illustrating deviations that occurred during the experiment. For each political statement, a further multivariate analysis was carried out using a demographic variable. This provided a deeper layer of analysis and insight on why, or if, the sample changed its attitude to a political statement. The results of the analyses and consequences thereof are provided and discussed in Chapter 6.

4.7 SHORTCOMINGS AND SOURCES OF ERROR

The thesis' conceptual framework guided the research design and methodology. Although it aimed to approximate theory, worldviews, and logic to the research problem, it also introduced the potential for tautological data analysis. Wolcott (1994, p. 21) addresses this point in his book on describing, analysing and interpreting qualitative data. He questions how to "ensure that one does not gather only data that supports a preconceived framework", and proposes that in order to mitigate potential bias and errors, one must advocate for employing a healthy scepticism and an interactive process. Although Wolcott's approach has been adopted, and a concerted effort was placed on revealing the relationship between data and argument to the reader, a directing of data may have occurred.

The use of transdisciplinary research may result in shortcomings arising from an epistemological or ontological bias emerging from the data analysis. Similarly, the author's interpretivist and relativist approach to data analysis may not resonate with certain

¹⁰¹ Babbie (2007, p. 450) states that descriptive statistics concern the "characteristics of a sample or the relationships amongst variables in a sample".

readers with positivist imperatives. Although this has been well developed in the literature review, Charmaz (2007, pp. 125-130) makes a helpful distinction between positivist and interpretivist definitions of theory in data analysis. She suggests that where the former seeks “causes, favours, deterministic explanations, and emphasises generality and universality”, the latter “assumes emergent, multiple realities; indeterminacy; facts and values as linked; truth as provisional; and social life as processual”.

4.8 SUMMARY

This chapter outlined the research design and methodology that directed the fieldwork. It introduced the empirical data focus relative to the literature review discussion, as well as how an ethnographic case study is suited to obtaining data to address such findings. The case study delineation was motivated to be suited to the urban environment of Long Street, which has numerous physical and political features that resonate with the research problem. Two consecutive and mixed method fieldwork phases were proposed and argued to suit the development of new design and democracy theory. An embedded single case study design with multiple sub-units was argued to be able to deepen primary research insights. The primary unit of analysis was stated as Long Street, and five sub-units of analysis were stated to be the groups that occupy and influence this environment. For the first phase of fieldwork, the sample characteristics were indicated as comprising of twenty-one key informants who, representing the sub-units, had the authority to influence the case study delineation. For the second phase of fieldwork, the sample characteristics were indicated to comprise of two hundred individuals visiting the case study delineation.

Six instruments were introduced. The first was an online research platform designed to facilitate participant recruitment and manage fieldworker data. The second instrument was a guide for case study photography and supporting information. The third formed part of the first phase of fieldwork, and was a pre-interview questionnaire intended to assist the key informants to engage with the research at a deeper level. The fourth was also part of the first phase of fieldwork and included a list of in-depth questions that explored how key informants perceived design, participation, and Ubuntu in the case study delineation. It was stressed that the second phase of fieldwork was only designed after the analysis and findings of the first phase of research were completed, and that only one key observation was taken forward to further address the research questions. Responsive publicisation, which is concerned with the proactive generation of publics, was indicated as the key observation. The fifth and sixth instruments were a combination of the questionnaire and the designed object. This amalgamation was argued to be suitable for researching the key observation, and was termed an Abductive instrument (Ai). The Experience Design (XD) and Design For Participation (DFP) methods underpinned this instrument, and used a

CCTV camera (Surveillance) and security lighting (Deterrence) as a persuasive technology. The data obtained from these instruments was argued to provide an opportunity to measure how design, when underpinned by Ubuntu and participation, could allow participants to reflect on their relationship to public agency, and in turn, democracy.

Analysis of the fieldwork data was sequenced to suit the two phases of fieldwork, and the form of data being collected. The use of ATLAS.ti to code and interpret the in-depth key informant interviews and case study photography was outlined, and the intention of developing this data into key observations provided. The process of using SPSS to code and analyse the data from the experiment was detailed, and the use and format of this data to inform key claims established. The following chapter discusses the findings from the first phase of research.

CHAPTER 5 INTERVIEWS AND KEY OBSERVATIONS

Sticks in a bundle are unbreakable.

Believed to be a Maasai proverb, origination date, and author unknown

Sourced from Gregorian (2011, p. 33)

The collective overpowers the singular, and for democracy, this is evident in communal agency. Yet, as Duncan (2002, p. 774) states, legal discourse has a history of using the “metaphor of the bundle of sticks as a way to describe and think about the nature of property, especially land”, and how as “signified by the bundle, ownership of land does not so much indicate title to a physical portion of earth as it does the power to enforce certain rights in the land”. Using Duncan’s interpretation, this chapter explores how design and democracy has been employed to administer an urban South African environment, and how power and agency are complicit in this process.

The purpose of this chapter is to present and discuss the first phase of fieldwork, and develop findings which can address the research problem, and answer the research questions. The chapter comprises four sections. The first is a presentation of the sample characteristics and which key informants, as outlined in Section 4.2.4, agreed to be interviewed. It is these twenty-one individuals who occupy leadership positions, and have authority or agency to influence the case study being researched - Long Street. Authority and agency may be in the form of title, expertise, territorial occupation, office bearing role, and/or community representation. Although these forms of authority are not strictly demarcated, and may even work together, the focus of this chapter is how they compete and the frictions that arise when attempting to assert their influence on the case study delineation. This is important to understand how forms of collective agency occupy, or attempt to occupy, Long Street. The key informants are representatives of five sub-units, as outlined in Section 4.2.1, which were noted as being the main groups occupying the case study. The section also presents the sample’s depth of contribution to the research, and how the coding process, as outlined in Section 4.6.1, identified notable quotations from their interview. It provides a comparative overview of the key informants and their sub-units, which to some extent, are interwoven with notions of design and democracy in Long Street.

The second section is a presentation and discussion of the results of the pre-interview questionnaire, which discusses patterns of how the key informants initially perceived design and democracy. The third section is the main focus of this chapter, and discusses the in-depth interviews. It is organised according to the six questions outlined in Section

4.3.3, which discuss the case study (1) as a social environment, (2) as a designed environment, (3) how it developed over the last two decades, (4) the forms of leadership in the street, (5) how notions of Ubuntu can be incorporated, (6) and how individuals and communities participate in the development of the street. Where applicable, case study photography is included to support, refute, and deepen the discussion.

The fourth, and final, section is a meta-level interpretation of the first phase of fieldwork. It juxtaposes the findings for the research questions, and proposes four key observations. Although they directly address the research problem, the section will conclude with a motivation for why the key observation, responsive publicisation, was selected to be researched further in the second phase of fieldwork. The following section presents and discusses the sample characteristics for the first phase of fieldwork.

5.1 PRESENTATION OF SAMPLE CHARACTERISTICS

The sample for the first phase of fieldwork comprises five sub-units and their representative key-informants, who have authority or capacity to influence the case study delineation. In total, twenty-seven key informants were canvassed, and twenty-one provided consent. This resulted in a 77% recruitment acceptance rate, the distribution of which is illustrated in Figure 5.1 below.

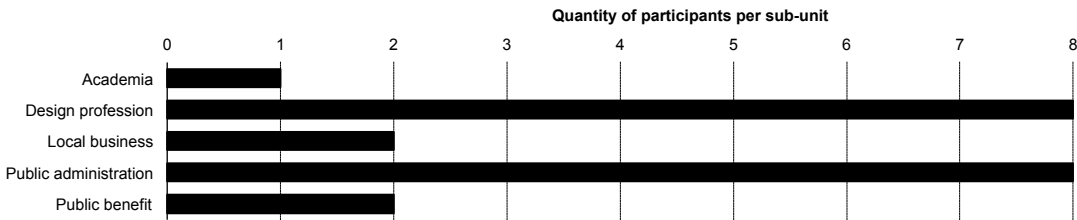


Figure 5.1: Sample distribution relative to sub-unit

As the figure indicates, the largest respondent contribution is from the design professional and public administrator sub-units, then local business and public benefit sub-units, and lastly, the academia sub-unit. As far as respondent profiles are concerned, the design professional sub-unit is comprised key informants from Formula D Interactive, ID&B, Infestation, Makeka Design Lab, Pedersen + Lennard, The Design Cradle (TDC), and two participants who requested to remain anonymous. The public administration sub-unit, includes key informants from the Cape Town Partnership (CTP), Central City Improvement District (CCDI), and the City of Cape Town (CoCT). The remaining sub-unit has fewer key informants, with public benefit including key informants from the African Arts Institute (AFAI) and the Social Justice Coalition (SJC, and local business having key informants from Select Books and Clarkes Books. From within academia, the key informant is from the African Centre for Cities (ACC).

Figure 5.2 below provides a more nuanced breakdown of sample contribution, and illustrates the depth of quotations identified in each participant interview. For each key informant, additional information is provided on their corresponding sub-unit, representing organisation, data analysis code name, and the number of quotations identified in their interviews. This density is indicative of the potential for citation, and not necessarily the actual use of the citation in this chapter's discussion. As the figure indicates, the greatest quotation contribution was from the key informants from the African Centre for Cities (ACC), Makeka Design Lab, and the Central City Improvement District (CCID).

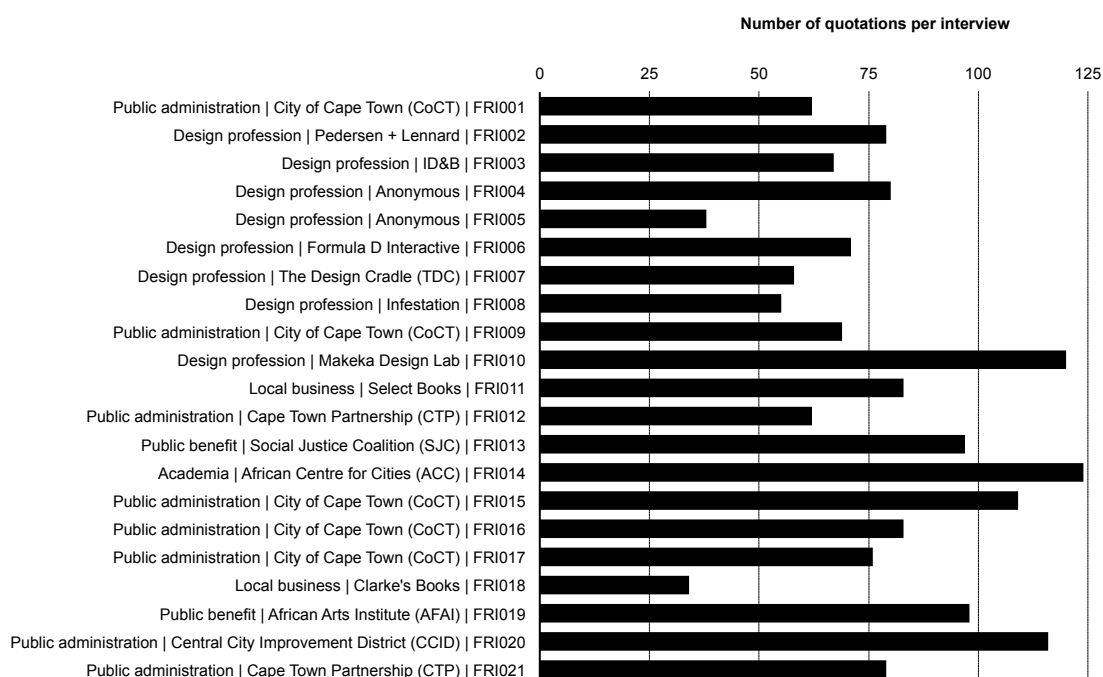


Figure 5.2: Sample distribution relative to quotation density

The sub-unit quotation density is provided in Figure 5.3 below, which provides a more detailed understanding of sub-unit contribution and number of participants than was provided in Figure 5.1. For example, if public administration is used as a constant, academia and public benefit increase in relative contribution, and design profession and local business decrease. This distribution should be kept in mind when reviewing the discussion of results in order to ascertain potential for bias.

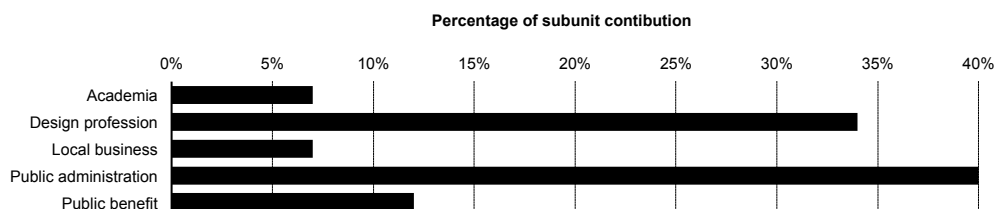


Figure 5.3: Sub-unit quotation density

Using the methodology outlined in Section 4.6.1, participant quotations and case study photography¹⁰² were coded into categories. Figure 5.4 below indicates the number of times each code category was allocated to quotations, and for each row, an indication of the search terms that assisted in allocating the codes is provided. The low occurrence of the code categories DEMOCRACY and SYSTEM was a surprise, and may be a result of participants' avoiding politically loaded terminology. The high occurrence of the code categories COMPARE and INTERACTION, suggests that comparison and/or action, was the preferred approach used to communicate notions of design and democracy. This suggests a sample preference for observed and experienced data over theoretical constructs.

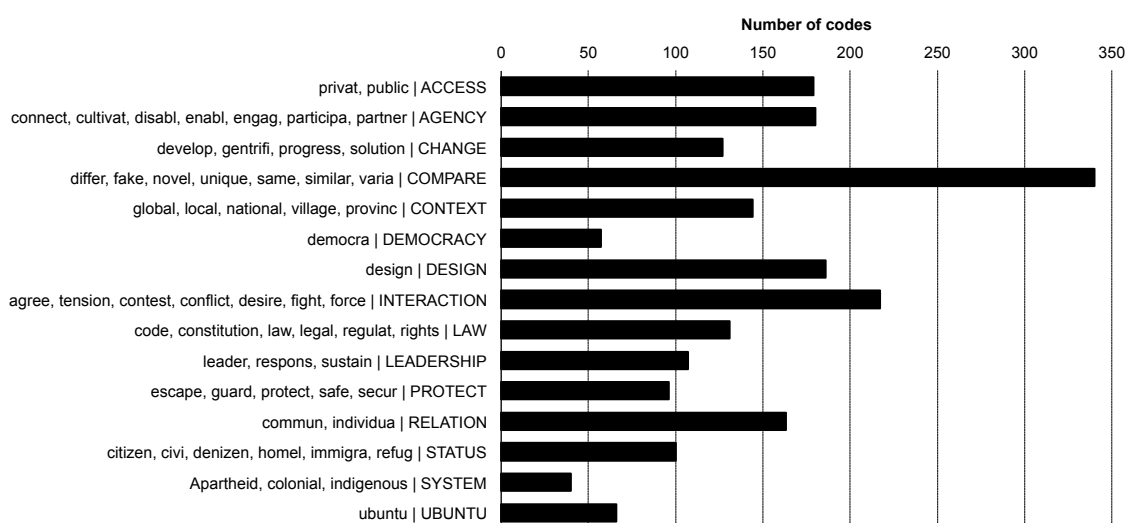


Figure 5.4: Search terms, code categories, and code density

5.2 PRE-INTERVIEW QUESTIONNAIRE

The pre-interview questionnaire, outlined in Section 4.3.3, captured participant views on design and democracy prior to the in-depth interview. This was a significant step, as it allowed the participants partial insight into the type of research being conducted, and secondly, allowed the interviewer foresight on how best to probe the subsequent in-depth interview. Figure 5.5 below provides an overview of the pre-interview responses. Each row represents a cumulative Likert item showing the extent of disagreement or agreement. Asymmetrical items indicate that the sample concurred for a given statement, symmetrical items indicate the sample is contested for a statement, and items that do not occupy a clear bias or distributed weighting are considered indeterminate.

¹⁰² One hundred and seventy-three photographs of the case study were collected. This total excludes images that did not conform to the photography observation requirements, outlined in Section 4.3.2, which were excluded from the data analysis phase.

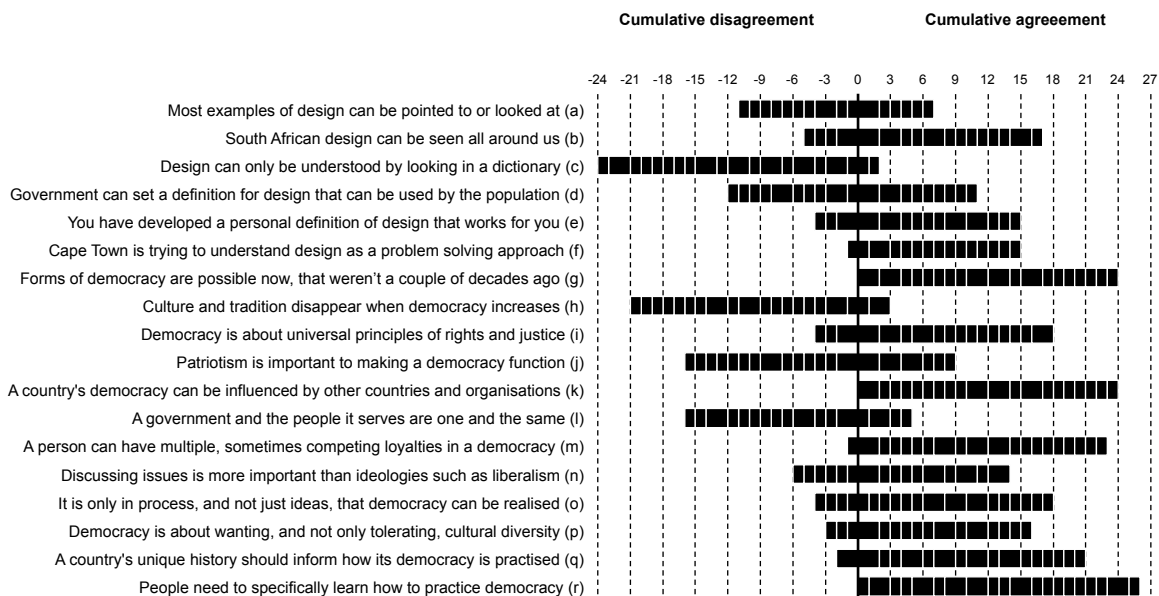


Figure 5.5: Pre-interview responses

The sample size does not allow for generalisations to be extrapolated from Figure 5.5, however, it does partly indicate the degree to which notions of design and democracy are homogenous within the sample. For example, the sample concurred with 45% of the Likert items, contested 5%, and 50%¹⁰³ were undetermined. For a sample representing five sub-units with different approaches to design and democracy, the percentage of agreement is arguably high. If some of the Likert items are reviewed in detail, other inferences can be made. From a design perspective, items (c) and (f) suggest that design is appreciated by the sample as being more than an artefact, and item (d) suggests a weighted disagreement in government framing design. From a democracy perspective, item (m) suggests the sample has a pluralist approach to democracy or civil liberties, items (g) and (h) suggest that IKS, although not termed as such, could be aligned with the sample's understanding of a South African democracy, and the sample's outright agreement for item (r) suggests that democracy is appreciated as a competency or process.

5.3 PRESENTATION AND DISCUSSION OF RESULTS

This section presents and discusses participant feedback on the six in-depth interview questions. Each question was addressed with the methodology outlined in Section 4.6.1, where participant quotations and fieldwork photography were coded and triangulated into visual networks. This process allowed observations to be conceptualised, interrogated, and if found informative to the research problem, included in this section. Each interview question is discussed under a separate sub-section, and depending on participant

¹⁰³ The percentages are based on concurrence being evident when asymmetrical items have a cumulative Likert score of less than or equal to three, and contestation being evident in a symmetrical cumulative Likert score that does not vary more than three.

response, addressed with case study photography and tables. These tables contain quotations formed from the notable visual network, representing sub-units, and the participant data analysis code name. Where applicable, additional literature review references are included to support the observation being discussed. The first question, how the participants describe Long Street as a social environment, is discussed below.

5.3.1 FORM OF SOCIAL ENVIRONMENT

As the case study delineation is comprised a central urban environment, it densifies social relations, and in turn, may amplify synergies and tensions. Whilst this may be true for any urban environment, South Africa's history of urban segregation emphasises the need to unpack patterns of socialisation in a contemporary democracy. In order to understand which collective agencies are being addressed or remaining suppressed, the following discusses how the key informants described Long Street as a social environment.

Table 5.1: Long Street is an authentic social environment

Participant	Sub-unit	Quotation
FRI003	Design profession	"I'm talking about the roots of Long Street. The authenticity of it, and it is there. It's terrifying, it's because it's so real".
FRI004	Design profession	"The [Space Theatre] plays were very authentic if you were a South African who [...] and I mean all Capetonians" and "in the days of Apartheid it was the space where people could get together across racial divides".
FRI014	Academia	"I think it [Long Street] has to emerge from some authentic place you know, so I think those seeds were always there".
FRI018	Local business	"So I think people undervalue tourists in terms of what they want. They don't just want all the funk. They don't just want Table Mountain, they actually want something authentic, and I think most tourists can see that stuff there is not authentic".
FRI021	Public administration	"There's a lot of history and memory there. Um, so that makes it authentic, the fact that it actually happens there at night as well as during the day, is also authentically in Long Street, and I don't know of many streets in Cape Town that have that kind of um, cosmopolitan feel about them where, you know you're flying in from Germany".

In Table 5.1 above, Long Street is positioned as an authentic social environment, or one that is capable of providing such an experience. From a historical perspective, authenticity is revealed with a sense of trepidation, however, it is almost welcomed and considered desirable (FRI003, FRI004, and FRI014). From a contemporary perspective, authenticity is largely concerned with tourism, either as a quest for the consumption of authentic experiences and artefacts (FRI018), or as an environment that is conducive to facilitating a cosmopolitan diversity (FRI021). Read collectively, the sub-units tend to reveal that the design profession is biased towards authenticity as a dynamic experience, and the remaining sub-units are biased towards authenticity as a focused interaction or artefact.

As an observation that can be used to explore and reflect on the research problem, the quotations reveal how authenticity can embody both conceptual and physical attributes. The mention of Long Street's Space Theatre (FRI004) provides an intimate understanding

of authenticity under Apartheid. The theatre opened in 1972 with Athol Fugard's play titled "Statements after an Arrest under the Immorality Act" which was about "illegal inter-racial sex discovered by the police" (Burns, 2002). Here, Long Street socialisation is about authenticating relations under prejudicial falsehoods. This is quite different to other uses in the table. For example, associating an authentic social environment with "terrifying" is a layered observation. It could be a bigoted statement, detached voyeurism, or simply an indication that socialising in Long Street is affronting and without social courtesies. In all cases, and like the Space Theatre, authenticity is framed as a form of struggle.



Figure 5.6: What form of authentic struggle

The association between authenticity and struggle is partly evident in Mihali's (2014, pp. 227-240) critique of Descartes' authentic freedoms. She develops two concepts; the first is *authentic spontaneity*, which "involves an act of will that seems easy to the agent" and which "makes an agent worthy of praise"; the second is *authentic perversity*, which is the "apex of blameworthiness", and involves an "act of will of refraining which appears difficult to the agent". Figure 5.6 above provides two case study examples, which demonstrate these two concepts. The left-hand image is from the Boardhub retailer's shop front at No. 301a Long Street, and the right-hand image is a bloodstain outside the then closed South China Dim Sum Bar entrance, at No. 289 Long Street. Both images can be interpreted with Mihali's concepts. For example, the skateboard is a form of authentic spontaneity, whose anti-Fascist sentiment can be easily welcomed in an anti-Apartheid South Africa. The bloodstain is a form of authentic perversity and is indicative of the reality, difficulty, and evidence of struggle in South Africa. It is such imagery that reveals how Long Street's authenticity oscillates between populism and bloodshed.

Table 5.2: Long Street socialising is a veneered internationalism

Participant	Sub-unit	Quotation
FRI004	Design profession	"It's local pleasure and it's a place where people can mingle and just be nice to each other".
FRI008	Design profession	"So I'd say, almost any night you'd go there, you'd probably find most of the people are from out of the city, whether it's international visitors or people coming from the suburbs" and "I think from an international aspect, it's an accessible place to experience African culture um, and when I say that I mean it more in the westernised African culture".
FRI009	Public administration	"It wasn't like a popular place. I mean people didn't use to come here all the time. It was more locals that use to come here", "People need to be sensitised about what does a local mean" and "if it becomes a tourist attraction, locals are going to stay away, and they're going to move to where they can".
FRI011	Local business	"It's a Cape street, but with an overlay of internationalism and a kind of veneer of internationalism, but it doesn't go that deep I don't think".

Participant	Sub-unit	Quotation
FRI018	Local business	"People really are terrified of coming to Long Street, Local people. Overseas people are very happy to come. It's local people who are frightened to come in".
FRI019	Public benefit	"A place where a lot of international people hang out".

Table 5.2 suggests that Long Street facilitates international socialising. It demonstrates the ability for a street to remain physically demarcated, yet be symptomatic of a larger population. In this regard, Capetonians have access to a resource with which to experience domestic or international socialisation. However, it is the depth and legitimacy of this socialising that the participant's question. Socialising is suggested to be simply mingling (FRI004 and FRI019), and not an established social dynamic (FRI011). Access to the street is suggestive of embodying local rights and privileges (FRI009), providing a westernised access to African culture (FRI008), and a context that locals fear (FRI018).

Although assimilation of international culture is to be expected in a port city like Cape Town, to understand an African social environment as westernised is problematic. It arguably appropriates local identity in favour of an external agency, and as an observation to explore the research problem, it directly questions the reciprocal nature of internationalism. For example, describing a local South African environment as westernised is as equally appropriate as, for example, describing a local French environment as an Africanised European culture. This point reflects on the literature review Section 3.1.1, and the contestations surrounding the term "indigenous" and exercising a decolonial imperative. In addition, as well as Section 3.2.1, and how Stoic cosmopolitanism emphasised local identifications and affiliations. Read collectively, it is arguably acceptable to describe a local urban environment as international, as this introduces an opportunity for bidirectional agency and for indigenusness to be included at, and not represented under, a global level.

Table 5.3: Long Street's legal relativism

Participant	Sub-unit	Quotation
FRI002	Design profession	"In the suburbs, where there's targets of crime, where its been well planned out and executed. Cause those guys can get over any kind of electric fence you build you know, whereas opportunistic crime you know, if you have a fence it sort of dissuades the whole thing".
FRI004	Design profession	"People have to resort to all sorts of illegal things just to make a living" and "suppose people marrying across the colour line too. It was fine to go there too. It was like a safety haven".
FRI015	Public administration	"Would it [Long Street] be the same space and would the tourists want to go there? Because it's that edgy criminal activity which in many cases is the attracter", "Up to a third of the economy is completely illegal depending on who you talk to", "copper that goes through our ports, um and all the theft of cables. There's a huge illegal economy", "I would consider, part of Long Street even if it doesn't front onto it, and where you've got illegal activity happening because the customers are there, and the customers are there because of the legitimate businesses" and "A city is incapable of wiping out organised crime. We just don't have the resources and we don't have the delegated authority to do it".
FRP009	Public administration	"There was very little regulations, the country had just become free. There was a different feeling amongst people" and "People want drugs, allow them to at least have some level of, of um [...] outlets on certain sides of things, you know, not to, to criminalise everyone".
FRP010	Design profession	"It's a space that seems to be safe, but also that it's a space of release in the city".

Participant	Sub-unit	Quotation
FRP016	Public administration	"They showed these photos of how people are living as if it was criminal" and "I mean they may as well have said criminals. Than not use to word foreigners".

Table 5.3 above provides an overview of how crime is framed in Long Street. One participant demonstrates latitude for opportunistic crime and not targeted crime (FRI002); others believe that criminal or illegal activity is a normalised component of an economy, which cannot be detached (FRI004 and FRI015). A similarity suggested between two participants is the notion that it is constructive to disregard certain laws in order to alleviate social stresses (FRI009 and FRI010). In addition, and within formal administration, a public administrator notes that legal terms and procedures can be subverted forms of xenophobia (FRI016). Social dynamics in Long Street are suggested to have an established history of challenging the law, either due to the street's proximity to the port and facilitating illegal trade (FRI015), or the allowance for interracial couples to illegally socialise under Apartheid laws (FRI004).

The Long Street social environment is believed to have supported the remarkable resolve in challenging Apartheid laws, which appears to endure under the contemporary dispensation. In particular, the laws that are unfairly associated with diaspora communities, and more broadly, how the choice of consuming narcotics is partly a moral issue. From a sub-unit perspective, both design professional and public administrator appear to view law and criminal activity in a reflective and objective manner. As a research problem observation, it questions the agency and interpretation of law, particularly with regard to the speed at which South Africa attempted to transition from Apartheid to democracy.

This observation is found in the concept of legal relativism. Brecht (1939, p. 414) suggests that with regard to the idea or feeling of justice, relativism in legal philosophy "forced the search for the absolute on to a higher level of discussion". Wright (1990, p. 104) discusses the consequences of legal relativism towards the end of the century. He notes that although it has influenced American constitutional jurisprudence, he questions its ability to consistently problematise social issues, for example, morality. In addition, he argues that it still needs to "establish its own merits" and prove that competing doctrines, such as objectivism, are false. Yet in relation to the research problem, Table 5.3 demonstrates that the very idea of an activity being illegal in a South African context firstly requires higher-level discussion to dismantle the absolute connotations of the Apartheid state. In doing so, it may also allow indigenous law, discussed in Section 3.1.1, to contribute to the discussion of legal cosmopolitanism, which Pogge (1992, p. 49) describes as "committed to a concrete political ideal of a global order under which all persons have equivalent legal rights and duties".

Table 5.4: Long Street's social environment and gender

Participant	Sub-unit	Quotation
FRI009	Design profession	"Used to be like apparently the place for transvestite whores".
FRI010	Design profession	"This is going to sound rude, it's [Long Street] almost like a whore that everybody wants to have sex with. It's prostituted in a way".
FRI018	Local business	"So I think if we get women to come here, it would calm things down a lot because men do behave better around the place, and just get rid of that anger".

The prominent use of genderism in a Long Street environment is noted in Table 5.4 above. The participants suggest that gender can be ascribed (FRI009 and FRI010), or be employed to mediate social dynamics (FRI018) in the street. As an observation with which to inform the research problem, the table provides a contemporary and nuanced understanding of the sexualisation of gender and urban masculinity. Genderism is not necessarily deterministic or ornamental, but rather an assertive and predatory commodity that can be adopted by individuals and applied to a physical environment.

Table 5.5: Long Street social environment of eclecticism

Participant	Sub-unit	Quotation
FRI011	Local business	"I think that Long Street would probably be representative of [...] I think there are, you'd probably find that there's a more liberal attitude which would suggest that it's a [...] in Long Street as distinct from other parts of the country".
FRI012	Public administration	"You can have a drink in fairly sophisticated environment, cup of coffee or a meal, but then also experience fairly grungy, slightly scary spaces within that. So there's such a wonderful mix, an eclectic of what can be experienced. I mean, that's very unique". "Rocky Street in Yeoville, I'm not sure if you're familiar with it, and it was similar in a lot of respects to Long Street" and "it was a very eclectic group of business owners and the people that influenced that space were quite novel in their approach".
FRI013	Public benefit	"I mean it's obviously quite a unique and equally strange place".
FRI019	Public benefit	"A safe space that we are going to go into and do provocative art in that public space".

The participants in Table 5.5 above affiliate Long Street's social environment to eclecticism. This is evident in how the social environment is believed to embody a distinct liberal attitude (FRI011), described with terms such as "unique", "strange" and "eclectic" (FRI012 and FRI013), and a space that is conducive to acts of provocation (FRI019). Although these quotations may appear fairly innocuous, if juxtaposed with eclecticism as a worldview, they are examples of geopolitical complexities and tolerance.

For example, in a review of Stoic cosmopolitanism, Nussbaum (1997, p. 9) notes that the Stoic believed that "one does not need to give up local identifications and affiliations, which can frequently be a great source of richness in life". Mace (2014, p. 77) develops this point from the practice of liberal religious eclecticism, which she notes reveals itself as an emerging "discipline of religious studies contained resources tending toward cosmopolitanism, the broadening of horizons, and the amelioration of prejudices". Fernández (2014, p. 174) suggests that from an architectural perspective, eclecticism is a

“localized and aberrant phenomenon” which “predominates in the study of eclecticism in postcolonial regions”.



Figure 5.7: Mosques' open to Long Street spaces

With regard to the case study delineation, Long Street Mosques provide an exemplar with which to bridge academic interpretations of eclecticism with the participant's views in Table 5.5. Two examples are provided in Figure 5.7 above. The Palm Tree Mosque¹⁰⁴ on the left-hand of the figure, is nestled amongst Long Street bars and nightclubs, and is a remarkable display of cultural tolerance regarding the consumption of alcohol and narcotics. The Noor el Hamedia Mosque¹⁰⁵ in the centre and right-hand of the figure, opens up onto the street when over-capacitated, and reveals an extraordinary image of prayer rugs concealing an urban Long Street environment. These social interactions are unique, strange to some, and liked¹⁰⁶ by others. It is important to highlight that the Mosque demonstrates complex and informal cultural experiences, and not a curated experience found in, for example, cultural precincts¹⁰⁷. As an observation to inform the research problem, eclecticism provides a lens with which to identify a cosmopolitan expression of democracy.

5.3.2 TYPE OF DESIGNED ENVIRONMENT

The case study's built environment is historic and as Section 4.1.3 illustrated, provides tangible evidence of colonial, Apartheid, and democracy periods. Some artefacts in Long Street, be they in the form of buildings, streets, signage, or products, have outlasted the regime under which they were initially conceived. In order to understand if their affordance generating quality remains preferential, and in turn, which contemporary design methods

¹⁰⁴ The Palm Tree Mosque has a unique history in Long Street. It was founded in 1807 by the freed slaves Jan of Bougies and Frans of Bengal; Jan used “much of his money to buy slaves in order to convert them to Islam and to set them free”; from an architectural perspective, when the “level of Long Street was raised the door height was shortened and the level of the windows on the ground floor dropped” (Mountain, 2004, p. 92).

¹⁰⁵ The Noor el Hamedia Mosque was established at the corner of Dorp and Long Street in 1881 and in “memory of Abu Bakr Effendi, a Turkish Islamic scholar who was brought to Cape Town by the Ottoman government to provide new leadership in the Muslim community” (Mountain, 2004, pp. 100-101).

¹⁰⁶ This includes non-Muslim participants as is evident in the FRI011 quotation “On Fridays the mosque claims the street outside the mosque and makes that a public space [...] which I always think is quite nice”.

¹⁰⁷ Cultural precincts are often administrative led develops which advance social diversity through inclusive approaches to democracy. The Moruleng Cultural Precinct is an example, and the structured approach can be found in the Deputy Minister of Tourism's message delivered at the launch of the precinct. She suggested (Ministry of Tourism, 2015) that it would provide a “unique and diverse experience”, had the “role and power to change perceptions”, and was an exemplar of the “Heritage and Cultural Tourism Strategy objective of collaboration”.

and artefacts may be enabling democracy, the following discusses how the key informants described Long Street as a designed environment.

Table 5.6: Articulating design in a Long Street environment

Participant	Sub-unit	Quotation
FRI004	Design profession	"This new kind of design thing".
FRI005	Design profession	"I don't really know what design is. It's like what is art" and "So I don't actually know. I can't give a definite definition for design".
FRI012	Public administration	"We're dealing with the disaster of the way our built environment has been put together and cities as a whole have been designed for exclusion" and "design is still seen for the elite; people with money, people who can buy nice things".
FRI014	Academia	"Design can help tremendously make concrete what the implications of equity is within the city", "the detailed designed implication of certain ideas, like who actually takes responsibility to think through that actual technical resolution of certain things, which is as important and so. I found these, as you know I'm not a designer, but I'm absolutely convinced that it's a bigger part of the agenda. I am shocked to speak to technical people, designers that take those part of designs, how inarticulate they are about the technical detail", and "nobody takes the time to understand what are the collective and common practices that are already there. It may be really, really you know molecular or whatever, but it's there because there are people, so it's there. You know, and so, so really learning how to read those things and also to see what is often invisible for designers and for planners and so on".
FRI016	Public administration	"He may be spent a lot more time just getting executive management teams competency and capacity around, what design is" and "the original intent to leverage design and build competency around design has been lost".
FRI019	Public benefit	"So I wouldn't know if there's a South African design or a South African form that one can look to", "within the design world, within the arts world a very strong link between the upper echelons of that world or those worlds within Europe or American, within the international thinking", "disjunction between people's everyday experience of design and how design appears to be for poor people", "then you go into the city and you hear people talking about the World Design Capital and how we're going to use design to meet the challenge of poverty and blah, blah, blah, and in fact you know, even just to talk about design, to talk about design-thinking are concepts in which most people, you know, are not familiar with".

Table 5.6 above indicates how the participants articulated or framed design. By approximating these responses to the literature review's categorisation of designed object, process, and philosophy, the primary research question can be answered in further detail. As an object, design is suggested to be a material demonstration of affluence (FRI012), which is able to convey urban inequality (FRI014). As a process, the technical literacy and responsibility of designers are considered highly inadequate (FRI014), and the appreciation for researching existing social patterns to inform the design process, overlooked (FRI014). From a philosophical perspective, design is viewed as a trend or fashion (FRI004) and, conversely, considered responsible for Cape Town's layout of segregation (FRI012). Design is believed to be an Occident or elitist model of thinking, which is incongruous to a South African context (FRI019). In order for design to be realised within public administration, executive training in design literacy is required (FRI016). Only two participants openly declared that they could not provide a succinct definition of design (FRI005 and FRI019).

Whilst these comments and opinions resonate with the literature review, from a sub-unit perspective, some quotations contain surprises. For example, the lack of citing formal authoritative definitions of design is to be expected, but a design professional's (Architect)

inability to define design is unforeseen. This is not a criticism of the participant, but rather an indication of the fluidity and growth of design in a South African context. From a public administration perspective (CoCT), the apparent unmet opportunity to employ and grow design within the organisation is surprising, particularly due to the WDC2014 project being incubated by the key informants representing organisation. However, this interview was conducted in November 2013 in the build up to the WDC2014, and as such, internal design awareness and competency may have grown since then.

Table 5.7: Decolonising and normalising Long Street with design

Participant	Sub-unit	Quotation
FRI001	Public administration	"It felt authentic almost, um, that you were in these old buildings with wooden floors and high ceilings and uh you know there would be music playing, or the menu, whatever, it was just felt that it was natural".
FRI002	Design profession	"Our inheritance of our Apartheid architecture being one which is quite serious and a tool in the old regime" and "These overhanging balconies and the pillars, but they also create, they're like forest you know, trees [...] they're as beautiful as they are they also block what you could see behind, and so they create some sort of a safe place for someone to hide".
FRI003	Design profession	"Let's not take those Victorian buildings and turn them into showrooms. If you can just restore the legacy somehow and keep it going".
FRI006	Design profession	"Like any design exercise, it has to be grounded on partly what is there and one of the questions was on can it be built on like tradition" and "it's got a lot to do with um [...] tradition and kind of organically developed designs I mean German cities, I'll speak for the Germans, by the way they having the same conflict now".
FRI015	Public administration	"Do you manage the demand for heritage and conservation, versus the need of a modern city".
FRI018	Local business	"I think the architecture is authentic".

Table 5.7 above indicates how Long Street's designed environment occupies both historic and contemporary tensions. Participants note that it facilitates criminal activity (FRI002), and represents the conflict between heritage and urban development (FRI015 and FRI006). They also note that the buildings and architecture in Long Street are authentic (FRI001 and FRI018), and although not specifically directed to the street, Apartheid's use of architecture as a regime instrument is suggested to remain (FRI002). These points arguably reveal characteristic urban tensions, and discount the extent to which the designed environment is operating in a normalising and decolonial manner. Two examples are provided using fieldwork photography and observations.



Figure 5.8: #ZumaMustFall

The first example concerns the use of Long Street's large-scale structure that appears to have afforded social media activism. It is discussed using the four case study photographs in Figure 5.8 above, which were taken from the 15th to the 19th of January 2016. The wording ZumaMustFall covers a Long Street residential block facade, and appears to be linked to a social media campaign using the same metadata tag¹⁰⁸; it is directed towards the South African president and his supporters. The left-hand image is of the signage being mounted, the following two images are the public actors who mobilised to remove it, and the right-hand image of the South African flag is the replacement signage. Although the originators and financiers of the sign remain anonymous (Pather, 2016), the removal of the sign is accredited to the ANC (Koyana, 2016). This display of #ZumaMustFall is an illustration of how a large-scale artefact can be occupied by digital activism, and conversely, how actors can effectively reach into the cloud and ground such agency. It is also an example of how a national flag can be employed as a neutralising agent.

The second example, of how Long Street's designed environment operates in a normalising and decolonial manner, concerns the subjugation of international architectural movements. The statements in Table 5.7, which suggest that Long Street's architecture is authentic, are contestable. On the one hand, and considering that the architecture in Long Street is primarily of a Victorian aesthetic, to describe it as authentic, is to suggest the colonial aesthetic as African. Yet, on the other hand, and as the photographs in Figure 5.9 below indicate, colonial era infrastructure can be redesigned to express African agency. The left-hand image is of a building at No. 76/80 Long Street. The building was constructed in 1886 and rebuilt in 1903, and although it initially housed the Young Women's Christian Association (YWCA), it is now the Pan African Market and Timbuktu Café (Martin D. , 2007, p. 45). The centre image is of a #RememberMarikana

¹⁰⁸ Colloquial reference is "hashtag".

campaign¹⁰⁹, which renamed a Long Street side lane to David Fezile Saphendu Street from Vredenburg Lane. In doing so, the innocuous Afrikaans name *Vredenburg*, which can be translated to “peaceful village”, is redesigned to temporary memorialise an individual, and to reveal the contemporary conditions and injustices that South African labourers are subjected to.



Figure 5.9: Normalising heritage with design

As an observation, the decolonising and normalising quality of Long Street's environment is also a form of retroactive heritage. This term is motivated by a participant's (FRI011) comment that passive heritage is, for example, when the “National Monuments Council puts up a monument which says, this is a monument for this reason”, and active heritage is, for example, when a developer “could’ve ripped up the floor, but they didn’t. They left the floor as wooden”. Retroactive heritage combines these two approaches to consciously roll back passive heritage to actively reveal an authentic base. The right-hand image in Figure 5.9 above provides another example; although the indicated monument is not within the case study delineation, the message “Disown this heritage” reveals how a designed object can inadvertently facilitate the process of its own removal.

Table 5.8: When Long Street actors become actants

Participant	Sub-unit	Quotation
FRI002	Design profession	“She was a human being, person, a South African living on our street, so for me those facts are real”.
FRI015	Public administration	“Street people are not our problem. They belong to the National Department of Social welfare, but they are our problem because they are our streets and people complain to us”.
FRI020	Public administration	“I can walk down a street and my eyes are focused on fifteen different things that I can influence and effect, so I can look and say, ah [...] potholes, bent pole, missing traffic sign [...] street sign, someone made a mess in this alleyway, clean it up. I've got a homeless person sleeping there. I can phone one number and my team goes out and does all seven items”.

Institutionalised views of homelessness are provided in Table 5.8 above. Although homelessness is a social dynamic, the quotations have been included under the question

¹⁰⁹ On the 10th of August 2012, mineworkers “downed tools when employers said they could not afford their demands for a ‘living wage’ of R12,500 per month”, and as tensions escalated, the “police shot dead” thirty-four striking mineworkers on the 16th August 2012; this incident is known as the Marikana massacre and is often referenced on social media with #RememberMarikana (ENCA, 2016).

of Long Street as a design environment due to the manner in which the public administration conceptualises such peoples. The term “Street People” is defined by local government as “people, who for any reason use the outdoors as a place of abode for a lengthy period of time” (*Street people policy*. South Africa. City of Cape Town Municipality, 2013.). Although the term is official, public administrators tend to use it with the same practical lens of ownership, repair, removal, or replacement that is used for managing physical infrastructure and waste. The literature review discussed causal and bidirectional power relationships between actors and actants in urban environments, and it did not consider that an actor could occupy the same ontology as an object. As an observation to inform the research problem, the relationship between actor and actant should also include a propensity for prejudicial assimilation. For example, what implications may arise when an actor is categorised as an actant.

Table 5.9: Long Street’s design for public access

Participant	Sub-unit	Quotation
FRI008	Design profession	“I see it as a public space um [...] the sidewalks and the roads as a public space that’s not being given, you feel like [...] you should be able to interact in between businesses” and “It is public because people go to Long Street like you use to go to meet some friends at the mall”.
FRI010	Design profession	“We haven’t actually understood that public space is an issue of use rather than visual”, “You don’t do things there because it has to look good; don’t walk on the grass, it’s a public space”, and “Post 1994 and even maybe [...] post 1990 I’d say, how informal trading began to say, well it’s a public space, I have a right to trade”.
FRI011	Local business	“The only public spaces in Long Street or under the trees here where I have together with the Lutheran church, attempted to put the bollards to stop the cars parking, but they have now given these [...] um, vendors the things”.
FRI013	Public benefit	“In terms of public space on Long Street specifically. Um [...] I mean Long Street itself has become a public space I guess”.
FRI014	Academia	“Public space is really about am moment of respite, to be social” and “The debate about public space, assuming that it’s something that has to be brought into the fabric in some kind of engineered way is deeply problematic”.
FRI016	Public administration	“Public need to assume control of these public spaces for them to be respected as such by other publics [Laughs]”.
FRI021	Public administration	“The public realm which doesn’t belong to anyone as except the public”.

Table 5.9 above reveals how the participants believe Long Street to relate to notions of public space. Numerous assertions are made, such as the following: Long Street’s designed environment is believed to facilitate interactions similar to a large retail precinct (FRI008), it is alleged that South African public space is designed as ornamental and not for broad and direct public usage (FRI010), Long Street’s public space is transitional, limited, or an administrative concern (FRI011, FRI013, and FRI014), and conversely, public space belongs to the public, and should not be conceived from an engineered or administration standpoint (FRI021 and FRI013). Of particular interest, it was suggested, that in order for a public space to be respected, it needs to be appropriated by the public (FRI014, FRI016 and FRI021).

Before discussing these points, an overview of Apartheid era legislation is required. In particular, the Reservation of Separate Amenities Act No. 49 of 1953, which, in many instances, functions as a priori to these points. The Act provided for the exclusive use of “public premises” and “public vehicle”, which included, for example, land, buildings, trains, and busses; it stated that if any “person who wilfully enters or uses any public premises or public vehicle” that has been reserved for another race or class, they will be “liable on conviction to a fine not exceeding fifty pounds or to imprisonment for a period not exceeding three months” (*Reservation of separate amenities act*. South Africa. Senate and the House of Assembly of the Union of South Africa, 1953.). This legislation has since been repealed (*Discriminatory legislation regarding public amenities repeal act*. South Africa. Parliament of the Republic of South Africa, 1990.).

Although much legislation that governed the access and occupation of public space has been repealed, the participant’s in Table 5.9 reveal an impression that public remains a state asset, and not a public one. On the one hand, this may be due to broader¹¹⁰ discussions of neoliberalism and public ownership of land. For example, Cape Town’s “Reclaim the City” campaign makes use of the Long Street environment to argue that “Apartheid spatial planning still defines most residents’ experience of their city” and to advocate for “desegregation and affordable housing development in the inner city” (Reclaim the City, 2017). On the other hand, contestation of what is public space is, may also arise from the conceptual ambiguity in state naming conventions. For example, for a municipality to be titled the *City* of Cape Town, it arguably disenfranchises the actors and actants, which comprise the *city* of Cape Town.

5.3.3 PERCEPTIONS OF URBAN CHANGE

Change in historic urban environments is related to design and democracy, as was discussed in Section 2.2.1. This section revealed that certain design methods and resultant artefacts can enable or hamper change. The following develops this argument by discussing how the key informant’s perceived change to have occurred in Long Street over the last two decades.

Table 5.10: Long Street and unique change

Participant	Sub-unit	Quotation
FRI016	Public administration	“That was an international pattern, but downtowns kind of collapsed all over the world, and it’s the same with Cape Town although it got to the brink and then we managed to save it”, “No and it was an era in planning internationally to separate uses and um, I think probably what Apartheid did was take it to more of an extreme”, and “it was a particular era in urban histories”.

¹¹⁰ See for example Cumbers and McMaster’s (2012, pp. 172-179) research on the “meaning, status and function of public ownership” and their conclusion that until public confronts “ownership and participation in economic decision-making as critical issues for an alternative agenda the left will continue to cede ground to the neo-liberal agenda of market fundamentalism”.

Participant	Sub-unit	Quotation
FRI020	Public administration	"There cycles that other cities go through, I'm sure. I don't understand why we should be unique. I think it's a universal, international type of trend" and "I would say that it's probably an international [...] I would say that what may be different is perhaps different [...] I think it's uh, some cities may evolve quicker than others depending on the dynamics".

Table 5.10 above provides feedback from two public administrators, who chose to reflect on how Cape Town compares with international patterns of urbanisation. They believe that similarities are evident in the use of urban planning models (FRI016), and if such models fail, implications tend to be similar (FRI016 and FRI020). Differences are, however, stated to be in how Apartheid intensified international models (FRI016), and in relation to Cape Town, that cities change quicker. These are useful observations and suggest that, although Apartheid was underpinned by a philosophy of Calvinism, it required contemporary and universal urban planning models to be operationalised.

Table 5.11: Long Street is being gentrified

Participant	Sub-unit	Quotation
FRI004	Design profession	"I think you've got to gentrify Long Street, sorry to tell you that. Well I think that if you want Bo-Kaap people to bring their kids and come for a drink or come for a meal, you got to gentrify it a bit more".
FRI012	Public administration	"Maybe a bit of public art and such. Just by their existence would you know, hopefully make the undesirable elements retreat to other areas because it's well it".
FRI013	Public benefit	"I think that people though who say that gentrification has led to the blanket removal of so called undesirables um, I think that's very valid", "Making park benches undesirable so you can't sleep on them which I think is optimises that type of attitude", and "Under the unfinished bridge and bridges across Cape Town, there's been this attempt to put kind of jiggered stones underneath them to prevent homeless people from sleeping there".
FRI016	Public administration	"I suppose what's happening in the CBD is more of a gentrification which inevitably brings an expectation on the part of [...] established residential community".

Table 5.11 above revisits the literature review discussion concerning gentrification. The participants suggest that gentrification can be employed to make the environment conducive to families, or, due to Bo-Kaap being associated with the Muslim community (Iziko, 2017), to increase religious congeniality (FRI004). In addition, the participants stated that gentrification is indicative of established residential agencies (FRI016), and when enabled by design, it can afford classism (FRI012 and FRI013).



Figure 5.10: Gentrifications selective access

The suggestion that gentrification can bridge communities and generations, provides an unforeseen and nuanced observation with which to inform the research problem. Within multicultural contexts such as Long Street, gentrification may be able to engender democracy by diversifying environments in a manner that attenuates a dominant cultural imperative. For example, allocating an area of Long Street for entertainment that only serves non-alcoholic beverages. The photographs of the case study in Figure 5.10 above, and the park bench¹¹¹ (FRI013) comment in the aforementioned Table 5.11, suggest that it is in the application of gentrification that contestation can emerge. For example, the left-hand image is a closed lane at No. 197 Long Street, which only allows privileged access, the centre image is indicative of the creative class as discussed in Section 2.3.1, and the right-hand image is an “undesirable” being escorted from Long Street. These images reveal how designed objects and systems can reinforce the idea of gentry as a lauded predetermination, and not as a broader and preferred mode of socialisation. In other words, gentry is a title and not action.

5.3.4 PROMINENT LEADERSHIP

Chapter 1 introduced that South African leadership is responsible for the country's democracy being under duress. However, Section 3.2.3 provided a more considered perspective, and argued that a Deweyan progressive political form is aligned with the needs of a contemporary South Africa, and as such, leadership is also a civil responsibility. In order to understand what leadership is practised by the case study's five sub-units, the key informants were asked what forms of leadership are prominent in the Long Street.

Table 5.12: Long Street has no leadership

Participant	Sub-unit	Quotation
FRI001	Public administration	“Long Street is something that has just evolved and morphed from stuff, and it's because of that, because of this randomness, when you walk down there, and you kind of feel that there probably wasn't any leadership to start with” and “In the last five years, it's just plateaued, you know, and it hasn't gone up again, and I think that energy to jump to the next level requires leadership”.
FRI010	Design profession	“I'm not going to say it's leaderless because that sounds bad”.
FRI011	Local business	“We were meeting was because there was no um [...] there was no, there was no leadership”.

Table 5.12 above reveals how certain key informants believe Long Street to be lacking in, or having no leadership. The participants suggest that leaderlessness was by design, and that the street has traditionally developed in a dispersed and organic manner (FRI001). In addition, they state that leaderlessness was identified as a cause for concern which

¹¹¹ The park bench example is a reference to a CoCT councillor who argued that the current design of public furniture encourages “people, mostly vagrants, to lie down and sleep rather than sit” and that by “involving designers and artists in a collaborative process, public benches can become more than just furniture” (Nicholson, 2013).

initiated collective action (FRI011), and that the idea of leaderlessness is an emotive statement (FRI010). These quotations suggest that leadership in the case study delineation is not only a concern of practical administration, but it is also a desire for state guidance, which is arguably reminiscent of the Apartheid state and an autocratic form of responsibility.

Table 5.13: Types of Long Street leadership

Participant	Sub-unit	Quotation
FRI001	Public administration	"Leadership as in people in groups or just trends and things".
FRI003	Design profession	"You almost feel like there's definitely a self-sustaining authority or management system and legal system, if you want to give it such an orthodox word that goes on within the sub-cultures".
FRI005	Design profession	"Who else are leaders? I suppose the shop owners; do they ever get together by the way". "You know that guy that was here, he was quite a powerful guy. He had these brutes and it's that brutes [...] it's not a subtle way of leadership it's like brute force".
FRI008	Design profession	"Leadership, I think it's very much [...] especially in the early two thousands, it was very much based on um, um [...] the bouncer, gangsterism kind of leadership".
FRI010	Design profession	"Don't want to conflate leadership with authority", "Police patrol as well as the CID guys patrol, [...] but are they leaders", and "Leadership comes from really feeling that this thing belongs to you".
FRI011	Local business	"I think leadership comes from newspapers, from both the national", "I think leadership comes from the people", and "I appear before the magistrate [...] we do have recourse, and that gives every person the leadership".

Table 5.13 above indicates the types of leadership that are believed to influence Long Street. The key informants suggest that leadership is in the street's fashion or artefacts (FRI001), is a status afforded to retailers (FRI005), is a display of power (FRI005, FRI008, and FRI010), is evident within local and national media (FRI011), can be found in self-sustaining forms (FRI003), and is paired with a sense of ownership (FRI010), and people have the legal recourse to enact their own leadership (FRI011). Read collectively, the table reveals multiple and polar dimensions. For example, leadership appears to span tangible to intellectual forms, informal to bureaucratic methods, individual to collective applications, and criminal to lawful models. Figure 5.11 below provides case study photography of these different forms of leadership. The left-hand image is of a CCID public safety kiosk installed outside No. 235 Long Street, which is a retailer of adult sexual paraphernalia. The middle image is of two police officers surveying marching protestors, which, if related to key informant FRI010, the officers could be described as an authority and the marchers as leadership. The right-hand image is of a private security guard.



Figure 5.11: Authority, but not leadership

These multiple dimensions of leadership reveal that urban governance can be composed of interweaving and normative agencies, and importantly, some of which may not recognise each other. Jessop (2016, pp. 16-27) alludes to this point with the concepts of metagovernance and Multi-Spatial Metagovernance (MSMG). Although his paper is from a European Union (EU) perspective, the concepts remain relevant to the diversity of Long Street. He notes that metagovernance occurs at multiple “sites and scales as governance problems or the shifting balance of forces prompt efforts to improve governance”, and that MSMG highlights the “complexity of issues that are often treated in oversimplified ways”.

Table 5.14: Devolving leadership

Participant	Sub-unit	Quotation
FRI013	Public benefit	"We've seen devolution of governance to local level which is often not very well capacitated um, but responsible for the most basic services" and "With local government, you'll see a tap being installed or a toilet being installed or a hundred toilets being installed which I think shows people through kind of engaging the states through whatever kind of manner is necessary, you can actually have change, and for many people it's the first time they've actually seen change".
FRI017	Public administration	"It's not our responsibility. The constitution says its province. Province can't do it so we've got to back off the slack because the citizens expect a library".
FRI020	Public administration	"So you've got to go to your local councillor [...] he's the first port of call. If you're a bit more savvy and you've got a bit more time and you know how to manoeuvre yourself in the city".

A more detailed understanding of the relationship between leadership and governance is provided in Table 5.14 above. All three participants suggest that governance has devolved to a local level, and it is the expectations of leadership at this level that become apparent. The outputs of governance at a local level represent tangible proof of service delivery (FRI013), a formal starting point for the politically uninformed (FRI020), and a level at which public demands may override constitutional legislation (FRI017). Cross-referencing the participant quotations observes a mechanism of devolution, where an under-capacitated local governance (FRI013), and an under resourced public (FRI020), effectively collaborate to drive public expectations through a resistant bureaucracy.

5.3.5 URBANISED IKS AND UBUNTU

The first key-concept which concerns IKS/Ubuntu was developed in Section 3.1, and although its application to the research problem has been established, it is also noted as being a contested area of knowledge. As the first sub-question was derived from this key-concept, the key informants were asked how notions of Ubuntu could be incorporated into Long Street.

Table 5.15: Typologies of Ubuntu

Participant	Sub-unit	Quotation
FRI001	Public administration	"Correct me if I'm wrong cause I could be naive in this space but Ubuntu is about [...] I am because we are type of thing. It's not about me, it's about us a collective which sort of has shaped me I guess".

Participant	Sub-unit	Quotation
FRI002	Design profession	"Definition of Ubuntu would be one of um [...] family members helping each other in times of need and the, the like surety that one would feel that you know that someone will always help you".
FRI005	Design profession	"I mean that [...] doesn't it mean the people [...] Ubuntu".
FRI006	Design profession	"I've come across, first time through um [...] not in connection with anything specifically, basically it's been [...] I heard it on the news, people quoting Ubuntu and referring to it uh [...] as an African concept" and "It's more than an idea, it more insight, it's that we are not existing kinda disconnected from our environment, that there is no [...] specific um [...] there's no possibility of existence in isolation".
FRI007	Design profession	"I mean I probably first came to hear about it during the Mandela years, you know the sense of practising, um, I mean what is Ubuntu, it's not a philosophy hey?".
FRI008	Design profession	"Heard it through the media first time, and it was explained as a [...] as a [...] coming together kind of thing, and then Ubuntu's operating system", "First understanding of it was [...] um, democracy means that the majority chooses a decision maker, where Ubuntu was, the majority makes the decision", and "whole idea that you're never alone um, so it's not a form of governing".
FRI010	Design profession	"A friend of mine was doing his PhD in Cambridge, and we were talking about culture and I gave this thing well, Motho ke Motho ka Batho, and he says what? What is that? I said, Motho ke motho ka batho which is the Sesotho translation".
FRI012	Public administration	"It may be a bit philosophical, but that's my understanding of Ubuntu. It's not necessarily physical stuff, but it's an entity to your neighbour, to your, your fellow person" and "Ubuntu is a by-product of empathy".
FRI016	Public administration	"When the ANC were in power, conversations around things like initiation sites was much more prominent than it is now".

Table 5.15 above provides an indication of which participants could recall how they initially encountered Ubuntu, or how they articulated or defined the term. Ubuntu was encountered through public media or products (FRI006), or as being affiliated with a particular presidential term of office or political party (FRI007 and FRI016). From a categorisation perspective, it is positioned as an African concept (FRI006), a philosophy or ideology (FRI007 and FRI016), or as an allusion to empathy (FRI002 and FRI012). In virtually all instances, it is described as an abstract concept, and not a lived existence.

Although all participants express an awareness of Ubuntu and the interpretation of "a person is a person through other persons", only one participant (FRI010) articulates it with an indigenous South African language. In all cases, participants develop the usage of Ubuntu from a personal standpoint, and do not cite an authoritative or official source. Within these descriptions, it is expressed as having a correlation with democracy and the agency of the people. For example, being described as "a collective" (FRI001), "the people" (FRI005), "no possibility of existence in isolation" (FRI006), "the majority makes the decision" (FRI008), and "an entity to your neighbour" (FRI012).

Table 5.16: Contesting IKS and Ubuntu

Participant	Sub-unit	Quotation
FRI002	Design profession	"I see it more as an anchor, like a deadweight on people rather than a benefit".
FRI003	Design profession	"Can't really skip along, saying Ubuntu" and "Don't think we can have too much expectation on it, I don't think, we're a bit naive if we expect we're all just going to be, live alongside each other perfectly".
FRI004	Design profession	"The way we stereotype with Xhosa people and the Zulu people and all this stuff, it's just nonsense, and even in Long Street there's indigenous knowledge".

Participant	Sub-unit	Quotation
FRI007	Design profession	"Well fuck Ubuntu [Laughs] well I mean I'm not saying I would say 'Fuck Ubuntu', I think that's the reality and I think it's used in the most opportunistic way and insincere".
FRI011	Local business	"I'm slightly sceptical in a sense that it's not, it's not kind a defined feature" and "I think it's a political slogan; it's not a philosophical slogan, and that's the result I think it has a problem".
FRI014	Academic	"I think kind of playing around with the idea of indigenous knowledge because it's such a powerful signifier, that's fine, but I, you know I kinds of [Laughs]", "The idea of indigenous knowledge sits up there with Ubuntu and all of those things which I just think is a lot of bollocks", and "It's no different to anybody who's trained at Cambridge and you know lives in an elite, lives in Notting Hill and works as a banker".
FRI016	Public administration	"Some cities are more in touch with this stuff than Cape Town um, and I suppose that's the particular nature of Cape Town and its history", "In a context of urbanisation where change is so dynamic and people's circumstances are so dynamic, new indigenous knowledge systems get generated", and "I didn't see any Ubuntu there, really. It was in the, it was in the rhetoric, it was in the ideology, it was in the thinking, but it didn't manifest in the practice".
FRI019	Public benefit	"So many of the people kind of see themselves in terms of indigenous knowledge as kind of being marginalised for, and continue being marginalised. So they are not affirmed in a way that they feel that they are part of the city um, politically, culturally and so on".

Table 5.16 above provides an overview of contestations that emerged when the participants deliberated IKS/Ubuntu. The participants state that IKS and Ubuntu are stereotypically associated with certain South African population groups, and not necessarily to urban areas (FRI004 and FRI014), are naive expectations which may not materialise (FRI003 and FRI016), have become discredited due to unscrupulous usage (FRI007), lack credible definition (FRI011), are tantamount to political slogans (FRI011), are symptomatic of historic urban marginalisation (FRI019 and FRI016), and if practiced, will result in a burden (FRI002). Where one participant verbally dismisses both IKS and Ubuntu (FRI014), a fieldwork memo (Qually, 2013a) recounts how another participant (FRI011) appeared irritable when the question was raised and foreshortened the interview.

On the one hand, if Table 5.16 is juxtaposed with the literature review of Section 3.1, participant contestations of IKS and Ubuntu are similar. Therefore, the purpose of Table 5.16 is not to critique these points again, but rather to demonstrate the manner in which contestation is held. For example, the participant's suggestion that IKS and Ubuntu are equivalent to the Anglo-Saxon vernacular for genitalia (FRI014), and oversimplifying Ubuntu to the banal (FRI003 and FRI011), is indicative of analytic philosophical reasoning that uses a form of derogatory deflationism. These quotations are important to notions of decolonisation, in that through presenting an indigenous worldview, certain terms, and not the underlying concept, may be obstructing dialogue. Had Ubuntu been introduced to the aforementioned participants as an allegory, their response may have been more insightful.

On the other hand, the statement that Ubuntu is a "deadweight on people rather than a benefit" (FRI002) is of interest as it forms part of a broader considered discussion. The participant revealed that his staff members are unable to accrue capital due to Ubuntu

endorsing socio-economic dependency from friends and family. He juxtaposes rural and urban environments, and suggests that a “disconnect has happened in that it’s an old concept which is trying to be translated here and it’s actually, it’s under a place of abuse” and that there is a “money drain constantly”. Although this argument is not deflationist, it does reveal how a neoliberal lens can paradoxically shield Ubuntu. Socio-economic reprieve is an exemplar of Ubuntu at work, where lifting of “deadweight” is a collective concern - although it may impede an individual’s monetary growth, it may also establish a support network should the same financial insecurity also befall on the individual.

Table 5.17: Activating IKS and Ubuntu in the city

Participant	Sub-unit	Quotation
FRI001	Public administration	“I do think that the Ubuntu thing talks a bit about the values and the variety of people and minds which to me talks about the co-designs process, that we have lots of perspectives around a table”.
FRI010	Design profession	“So I don’t think it’s [...] it’s unique to Africa or alien to the urban setting. It’s just a different way of occupying the city”.

Two quotations that situate Ubuntu as a contemporary and an urban process are provided in Table 5.17 above. The first draws a parallel between Ubuntu and participatory design, and the belief of the inherent value and benefit of diversity. The quotation provides a means with which to triangulate the literature review discussion, of cosmopolitan heterophilia in Section 3.2, and Ubuntu’s preoccupation with recognising the other in Section 3.1.1. As a model of participation, it arguably positions bottom-up, or top-down, power relations as a secondary concern to gaining unforeseen perspectives. Simply stated, an Ubuntu model of participation is not focused on inducing an actor’s contribution, but rather on facilitating an actor’s reception of other perspectives. The second (FRI010) quotation in Table 5.17 positions Ubuntu as a mode of “occupying the city”. In this manner, and by downplaying Ubuntu as an overarching philosophy or decolonial concern, indigenous knowledge is liberated from a historic static categorisation to a contemporary active form of urbanism. Ubuntu draws from the urban allowance to assert itself, without needing affirmation, and without being concerned with the metanarratives of what an African city should be.

5.3.6 NOTIONS OF PARTICIPATION

In the broad literature review, Section 2.2.4 argued that participation is a well-established process and methodology in the design and democracy literature. The second key-concept, of a Deweyan cosmopolitan perspective, places an emphasis on experimenting with participation, which is addressed in the second sub-question. In order to understand the relevance to a South African context and case study delineation, key informants were asked how individuals and communities participate in the development of Long Street.

Table 5.18: Pre-participation considerations

Participant	Sub-unit	Quotation
FRI001	Public administration	"South Africa, that whole thing of collaboration is difficult, all fighting for a small pie".
FRI002	Design profession	"Get scared off, is the bureaucracy of it, the red tape, associated with being involved, and the amount of meetings", "I don't have an issue with the City needing to take over ownership of the project at some point, because that must work, and you and I don't necessarily have the time and the means to do that".
FRI013	Public benefit	"City of Cape Town's response, in my opinion has largely been, and I think a lot of this has to do with kind of broader South African politics too. Um, has been to say well, either you sit back and let us do everything and stop complaining or you do it and we do nothing".
FRI014	Academia	"We've got these very class-defined, and also racially coded modalities of citizenship and civil society participation and engagement" and "it wouldn't occur to them [...] they can call their councillor and complain, which is kind of a difference, a racialised difference in a sense of civic um, civic rights".
FRI016	Public administration	"More participatory or bottom-up planning design processes in planning human settlements projects insensitive like Hout Bay for example, but it's still premised on, on the fact that the City must design that process, invest in it, put all the resources in and it's an enormously resource intensive process".

Table 5.18 introduces the interview question of how individuals or communities are able to participate in the development of Long Street. The quotations reveal how certain participants and sub-units initially frame the notion of participation, which reveals factors that limit the potential for participatory design to be realised in a South African context. The implications of the table, and observations to inform the research problem, are discussed below.

Two participants suggest that participation between public and local government is not possible (FRI013), and that class and race dictate the propensity for participation to be initiated (FRI014). For these participants, the state is positioned as having an agency incompatible with, or hindered by, participation, or that participation is construed as an institutional capability or a public privilege. A similar territorial predisposition is revealed when collaboration is suggested to be concerned with partitioning a known and quantified entity (FRI001). This is indicative of a monodisciplinarity, and not transdisciplinarity's third space and preoccupation with the generation of new knowledge.

Although the suggestion that participation is resource intensive (FRI002 and FRI016) and shared, it is how these views are articulated that is of interest. The design professional indicates the CoCT bureaucracy as obstructing participation, and is supportive of local government owning a project in order to reduce designer burden. The public administrator (CoCT) alludes to this approach, and questions the assumption that local government is positioned to invest resources and processes in order to realise participation. These perspectives indicate that participatory design between public and government actors is not necessarily a concern of value, but rather an upfront negotiation of deferred ownership and investment.

Table 5.19: Managing personalities during participation

Participant	Sub-unit	Quotation
FRI002	Design profession	"Needs to be some recognition from the City side to say you know, good ideas can come from within the population at a lower cost to the City and possibly a much better idea you know".
FRI012	Public administration	"Co-design if done correctly and if there are fundamentals put in place such as understanding that it's a safe space and that you leave your jacket at the door, you leave your title at the door".
FRI013	Public benefit	"Immediately you see that the designers are kind of dominate the conversation. Um, and I guess that's kind of just in their natures as designers you know" and "Facilitating that conversation is difficult. It's really difficult um. Again, because of the Language issues, because of the educational background and you'll find what we experienced in the first design storming".
FRI014	Academia	"Cultural values of society need to be democratised. You know and given, what I said earlier about the power of the rate payers and so on, it will be a fight, and you would need some serious balls as a politician or a mayor to take that on".
FRI015	Public administration	"It needed this big computer system to make it work, and [Removed 082] lost a hell of a lot of political credibility over that. He spent the whole of his political capital supporting that, but we got the system in and it worked".
FRI016	Public administration	"You know an enormous amount of local government energy goes into mediating disputes amongst communities and it's exhausting" and "Design itself could be, could quite often be seen as an intervention [...] as a top-down, let the City come in and bring some designers and show us how we can deal with this, rather than, it can also be a bottom-up process".
FRI019	Public benefit	"What is out here in the design world, um which people who, one might say ok we want to empower you, we want to give you a chance to etcetera, etcetera and you know, people do it on the basis of their lack of knowledge, a lack of sense. That becomes a patronising thing as well".

Cultural values and individual personality dynamics, from the sub-units, which may be expressed during participation, are discussed in Table 5.19 above. The quotations reveal how certain modes of participation are objected to, how the public administrator and public benefit quotations support the literature review discussion in Section 2.2.4, and concerns of how the design process and designers can impose power relationship. For example cultural and personality conflict can emerge from the use of professional titles, emphasis on language proficiency, type of educational background, promoting a narrative of empowerment, and the employing of an expert led scenario (FRI012, FRI013, FRI016 and FRI019).

Viewed collectively, the quotations do not require further discussion. However, if read in relation to the design professional's quotation (FRI002), an observation pertinent to the research problem emerges. For example, the designer's calls for recognition that "good ideas can come from within the population" form part of a wider debate on the design discipline seeking legitimacy in an emerging economy. In a South African context, what is considered designer dominance may actually be an expression of designer's need for affirmation, and an overcompensation for emphasising value in new undertakings. A similar appreciation of archetypal vulnerability, is suggested by the public administrator (FRI015), when government actors are required to invest and risk their "political capital" to effect change.

Table 5.20: Participation, solutionism, and reductionism

Participant	Sub-unit	Quotation
FRI010	Design profession	"He said this public space is for the people who live here. Then I said to him, then it's not public space" and "He was quite adamant that no, every community as its own public square".
FRI013	Public benefit	"Need to be very weary of kind of solutionist thinking when it comes to design. Um, when it comes to very, very serious sensitive issues like toilets or housing or water you know. We're not talking about chairs and tables here; we're talking about people's lives".
FRI015	Public administration	"Who are the real community as opposed to who are these creamy gatekeepers" and "You can't impose design decisions, special design decisions because they will just ignore what you've done or make better use of it like taking the bricks away".

Table 5.20 above provides the quotations that reveal forms of determinist participatory design, and in some case, failed consequences. The sensitive nature of designing within resource-poor communities is emphasised by one participant (FRI013), who distinguishes between design as an object, and design as an ongoing process. It is an important observation that questions the ethics of temporary or infrastructure led projects, when participatory design may inversely perpetuate a community's dislocation from broader dynamics. The other two participants discuss the reductionist oversimplifying of the community from outside and inside public administration (FRI010 and FRI016).

The design professional (FRI010) revealed a frustration with a CoCT official's attempt to constrain and segregate public space into community clusters. Reducing abstract phenomena, such as public space, in this manner is problematic as it introduces ambiguity. For example, territorial imperatives can both be understood as a literal form of project management, or as a vestige of government's administration of population segregation. The public administrator (FRI016) talks to this point by distinguishing between the "real community" and "creamy gatekeepers". In addition, through citing an infrastructure project, she notes how an enforced design project was dismantled by the recipient community, and the material resources reallocated to more feasible projects.

Although reductionist notions of community are symptomatic of a post-Apartheid South Africa and the lack of community transformation and integration, they are also indicative of how complexity is managed during participatory design. In some instances, community diversity and propensity for inconsistency may prove too great for project contributors and recipients, and the use of a reductionist form of generalisation is used as a coping mechanism. As an observation to inform the research problem, reductionism should be avoided as it instinctively hides opportunities, and rather, complexity should form a central component of the participatory design process.

Table 5.21: Post-participation considerations

Participant	Sub-unit	Quotation
FRI013	Public benefit	"Um, so we need to manage expectation very, very carefully. So whenever we have one of these co-design workshops, we're very clear [...] we try to be very clear, at least we have about it".

Participant	Sub-unit	Quotation
FRI014	Academia	"So the politics of maintenance and repairs is a very important part of the repertoire you know of effective civil organisations".
FRI016	Public administration	"I think sometimes these things move too quickly into being propped up as an initiative by the state, and becomes the state's burden to sustain and then it becomes a burden and it kinda becomes a, um, a compliance duty rather than an initiative".
FRI020	Public administration	"Without a management system in place you can do all the wonderful things that you want to do, but how are you going to sustain it, and without a management system in place to work [...] it works for the community [...] that thing's going to collapse".

Table 5.21 introduces post-participation considerations, which include the need to initially manage participant expectations (FRI013), that speed of execution is key to depth of contribution and ascertaining ultimate project responsibility (FRI016), that when participation has concluded a "politics of maintenance and repair" may be introduced (FRI014), and correspondingly, project sustainability may require a dedicated management system (FRI020). As an observation to inform the research problem, the quotations emphasise an inherent tension of participatory design occupying both transience and permanence.

5.4 SUMMARY OF KEY OBSERVATIONS

This chapter presented and discussed the first phase of fieldwork. The pre-interview questionnaire, in-depth interviews, and fieldwork photography revealed how the key informants viewed design, democracy, IKS, and participation within the case study delineation, Long Street. These key informants, being representative of sub-units that occupy and influence the street, help triangulate context, history, tensions, and agency into observations that point to the research problem. The following is a meta-level interpretation and juxtaposition of these observations into four *key observations* that can answer the research questions.

- The first key observation is termed *additive decolonisation*, which is concerned with advancing indigenous identity. It is an acknowledgement that, in South Africa, colonial influences need to be addressed. However, rather than removing or destroying such influences, it is an argument that indigenous influence needs to be developed, created, and enhanced. This key observation is a response to Fanon in Section 3.1, and how an IKS imperative is linked to decolonisation; yet it is also an acknowledgement of this chapter's evidence, and how the case study appears to afford indigeneity by evolving, and not destroying, the built environment. Artefacts, which at one point safeguarded colonial exclusivity and Apartheid segregation, are being reinterpreted and occupied to enable contemporary norms, whilst navigating heritage constraints. For example, buildings based on colonial aesthetics are delegated to being a canvas, and used to express indigenous norms and values, and a street name associated with Apartheid artificiality, is redesigned as a signifier of contemporary injustice. From a design and

democracy perspective, this key observation suggests that the design process can function as a diplomatic instrument by avoiding essentialist interpretations of struggle, and by proposing an alternative existence. Fanon's critical agency and preoccupation with authenticity is directed towards a progressive third space, and in doing so, it does not spend vitality on defeating colonisation. It is arguable that this approach is closer to realising indigenous identity, which is beyond the idea of enforcing indigenous as perpetual struggle.

- The second key observation is *legal relativism*, which is concerned with hyper-contextualising jurisprudence. It is an argument that, if contradicting certain legislation, results in a benefit to broader publics, the very notion of what comprises criminality and corruption should be revisited. Although this key observation is derived from the fieldwork observation with the same term in Table 5.3, it also points to the discussion of customary law in Section 3.1.1, and how South African legal systems are not absolute, but rather, run parallel to each other. Relative to the case study, such pluralism was indicative of how religious practitioners created traffic congestion by praying in the street, or when a public administrator indicated that libraries were knowingly funded from an unallocated budget. In both cases, although the process is bordering on criminal, they directly contribute to public affordances with no detractors.

From a design and democracy perspective, this key observation is that law breaking should not solely be a concern of procedural justice, but should also be interpreted with procedural ethics. Although this is an allusion to the Truth and Reconciliation Commission (TRC) discussed in Section 3.1.3, and to how Ubuntu attempted to reconcile victim and perpetrator worldviews. It is also an argument to include the design process within legal proceedings. Consider, for example, how design, when informed by a Deweyan cosmopolitan perspective, and with a focus on experimentation and civil responsibility, could temper a bureaucratic¹¹² approach to judicial systems, and rather form closer relationships between justice and community developments.

- The third key observation is termed *adopting uncertainty*, which is concerned with managing expectations of design projects. It is an extension of legal relativism and owning risk on behalf of a project. As a key observation, it is a reflection on the efficacy of participatory design methods as discussed in Section 2.2.4, and on the first phase of fieldwork, evidence reveals that designers and public administrators use the notion of participation to mitigate risk. For example, artefact conception was suggested to be

¹¹² For example, in order to cater for court case backlog, South Africa has “established community courts on a pilot basis to provide speedy resolution of certain types of community offences” (Republic of South Africa, 2017).

suited to a designer, and the manufacturing therefore, a municipal output, and in motivating for large-scale public projects, project go-ahead should be a public decision and not a municipal responsibility. Although these two approaches are not unusual, the ultimate responsibility for the design lifecycle becomes ambiguous, and in turn, may prevent an initiative proceeding. From a transdisciplinary design and democracy perspective, this places a focus on managing, and not advocating for certainty. In other words, if ultimate responsibility is contested, and if decisionism¹¹³ is positioned as an out-dated autocratic political form, uncertainty needs to be adopted and promoted as an actor in its own right. In doing so, experimentation may function as a collective concern, and populism, which may accompany critical hindsight, foreseen and managed.

- The last and fourth key observation is *responsive publicisation*, which is concerned with the proactive and dynamic generation of publics. It positions public as embodying the same, yet polar, agency as private, where publicisation embodies worldview-making capabilities equivalent to privatisation. In other words, a public is not a static categorisation, but rather something that needs to be dynamically generated. This key observation broadly resonates with the practicality of South Africa creating a new democracy, and in turn, the Deweyan idea in Section 3.2.3, that publics are constructed. However, it is primarily motivated by the findings from this chapter, and that South African's are considered to have a poor understanding of what comprises public space. In a physical form, physical public space is assumed to be a state asset that cannot be freely occupied without permission, and as a metaphysical public space, a simplistic allusion to nation building under state patronage.

From a design and democracy perspective, and within the key concept of IKS/Ubuntu, the self is relational to the public. This is implicit in the saying *Umuntu ngumuntu ngabantu* / A person is a person through other persons. Yet, if the idea of a South African public is aligned with South Africa's history of dictatorial rule, Ubuntu becomes an autocratic and scaled phenomenon, where the individual assimilates to state apparatus, similar to National Socialism as discussed in Section 2.3.2. It is this relational problem that motivates for the key observation of responsive publicisation to be researched further in the second phase of fieldwork. It provides the opportunity to revisit a knowingly contested issue with contemporary instruments. Section 4.3.4 outlined these instruments in detail, and the following chapter presents and discusses the data they captured.

¹¹³ Espejo (2012, p. 726) suggests that decisionism is the "view that the unrestrained personal decision of a ruler is necessary to give coherence and stability to a state".

CHAPTER 6 EXPERIMENT AND KEY CLAIMS

A single bracelet does not jingle.

Congolese proverb, origination date, and author unknown
Sourced from Gebregeorgis (2015, p. 236)

The Congolese proverb above serves as a provocation with which to demarcate the dual fieldwork phases. The first phase employed diversity to address the research problem of how design can incubate democracy, and how indigenous knowledge systems and participation are complicit in this process. Although the second phase responds to the same research problem, it uses singularity to deepen the mode of enquiry. It signals a change from exploring broad qualitative data, to explicating focused quantitative data.



Figure 6.1: Progressive and consecutive focus of chapter six

Figure 6.1 above indicates how the argument has developed to this point in the thesis. Reading from the top-left of the figure, Chapter 2 explored the research problem and mapped existing design and democracy literature. Two research gaps were identified in this chapter; the first was that South Africa is missing from the design and democracy literature, and the second was that the relationship between design and democracy had been argued from a monodisciplinary perspective. Chapter 3 responded to these gaps, and argued for two key concepts to specifically accommodate a design and democracy study that was appropriate to South Africa. The first was developed under the concept of Indigenous Knowledge Systems (IKS) in Section 3.1, and the second under cosmopolitan theory in Section 3.2.

Chapter 4 provided the research design and methodology, and addressed how new data was to be obtained in order to address the research gaps. Although it followed academic convention, and outlined how both the first and second phases of fieldwork were designed, in practice, the second phase was only conceived after the first phase had been analysed. The relationship between fieldwork phases is therefore causal and iterative, and similarly to the literature review, it was implemented with a progressive focusing approach to avoid favouring a particular agency or imperative.

Chapter 5 presented and discussed the data from the first phase of fieldwork. It triangulated attitudinal data from key informants and case study photography into key observations. These key observations theorise how design and democracy can influence a case study's physical appearance, functional characteristics, and policy related developments. Yet, it has been acknowledged that these key observations are largely abstractions, and from a transdisciplinary perspective, require grounded data with which to interrogate and develop into new theory. The purpose of Chapter 6 is to present and discuss the new data for the key observation - responsive publicisation. Section 5.4 stated that it offered a unique opportunity to engage with historically contested design and democracy phenomena using contemporary design methods and technology. Of the four key observations discussed, it arguably has the greatest synergy with both key concepts - IKS and cosmopolitanism - and is therefore selected as the preferred key observation to be developed further in this research.

The chapter comprises four sections. The first is a presentation of the specific case study location, as detailed in Section 4.1.3, which was used to canvas and research the two hundred participants outlined in Section 4.2.4. This section will also indicate how the Abductive instrument (Ai), as outlined in Section 4.3.4, was physically installed in the case study location, which allowed the participants to effectively use the surrounding built environment to dynamically reveal and reflect on their attitude to public agency. The second section of the chapter is a presentation and discussion of the sample demographics and instrument usage patterns. This section indicates how a sample size of two hundred participants was established, and what potential for bias may be within this sample. The third section is a presentation of the experiment's comparative data, which unpacks respondent feedback before and after having used the Abductive instrument (Ai). It is organised by the six political statements, as outlined in Section 4.3.4, which investigated how each participant felt about the following: (1) another country influencing their rights and justice; (2) their country making its borders more open to foreigners; (3) doing things that contradict their principles or beliefs; (4) getting involved in creating government change; (5) having other cultures, lifestyles, and choices influencing them; (6) having a community's behaviour driving government policy.

The fourth, and final, section of the chapter is a meta-level interpretation of the second phase of fieldwork. It reviews the chapter's evidence and pays particular attention to ascertaining how, and if, respondent opinions to each political statement were influenced by the design methods. The outputs from this section are four key claims, which are direct and unequivocal assertions of how design has enabled democracy, and how IKS and participation have formed part of this process. This section is of particular importance to Chapter 7 of the thesis, which is the conclusion to the design and democracy research.

6.1 PRESENTATION OF EXPERIMENT LOCATION

The Abductive instrument (Ai) was installed at 228 Long Street to take advantage of the area's high footfall, and relative to the case study's map in Figure 4.1, its density of mixed-use. Figure 6.2 below provides four photographs of the installation. Read from left to right, the first image is of the installation when viewed down the street, the second image is from across the street, the third is of the contractors installing an electrical junction box and Ai mounting bracket, and the fourth image is of the fieldworker canvassing. The installation under a balcony and next to a support column provided numerous advantages. For example, it functioned to conceal the Ai from pedestrian view, shield its electronics from adverse weather conditions, and provide a recruitment research point just off the flow of pedestrian traffic.



Figure 6.2: Abductive instrument (Ai) in situ on Long Street

Section 4.3.4 outlined in detail, how the fieldworker and participants used the Ai to obtain experimental data. A few case study nuances require further discussion, which are indicative of design and democracy tensions. For example, although the experiment took place in a public environment, it was installed on a privately owned building. This was motivated by the results of the first phase of fieldwork in Section 5.3.2, and how ownership of South African public space is contested. Working with a private actor may have circumvented protracted discussions with local authorities in negotiating, for example, the use of public artefacts for research purposes, and in turn, the management of unwarranted concerns over public privacy.

Two further nuances pertaining to recruitment were noted during the daily fieldworker debriefing sessions (Qually, 2016). The first concerned trust, and that by volunteering the Ai tablet to each participant, a gesture that was known to be at risk of theft, a trusting relationship was able to form between fieldworker and participant. As a social transaction, it both figuratively and literally placed agency in the hands of the participant, and arguably helped capture a more authentic participant response. The second nuance concerned the fieldworker being required to negotiate a form of racism, when a participant indicated that he only agreed to take part in the research because the fieldworker was black. The following section presents and discusses the sample demographics and key Ai usage patterns.

6.2 PRESENTATION OF SAMPLE CHARACTERISTICS

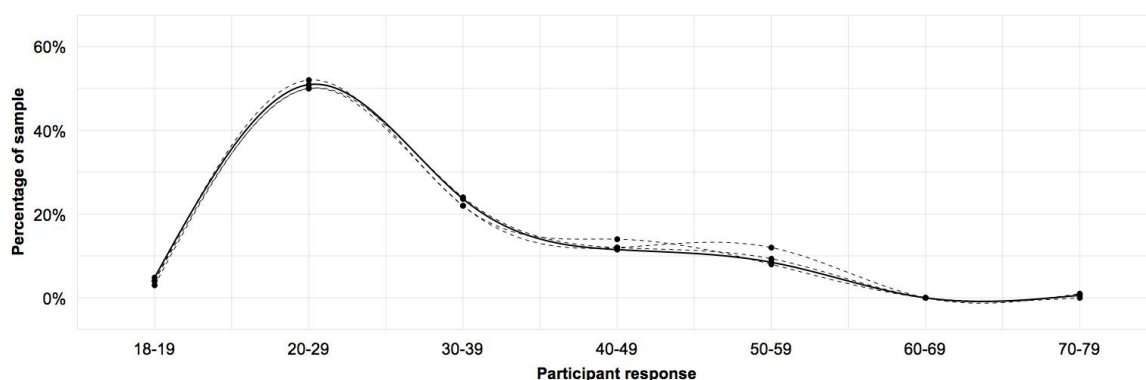


Figure 6.3: Establishing sample saturation

A total of 201 cases were obtained over a period of approximately two months, from the 20th of January 2016 to the 18th of March 2016. This resulted in 167 valid cases and 34 invalid¹¹⁴ cases. The sample size was determined by comparing cumulative fifty case increments concurrent to the fieldwork, and analysing frequency distributions for fluctuating patterns. Figure 6.3 above is an example of how this analysis was implemented using the variable age. The three dashed lines represent analyses carried out during fieldwork at 50, 100, and 150 case intervals, and the solid line is the 167 case mark. As indicated, the cumulative percentages are similar, and follow similar patterns with the other demographic variables. As a result, the sample is considered representative of the case study delineation, and obtaining further cases would not have been of significant benefit to the research.

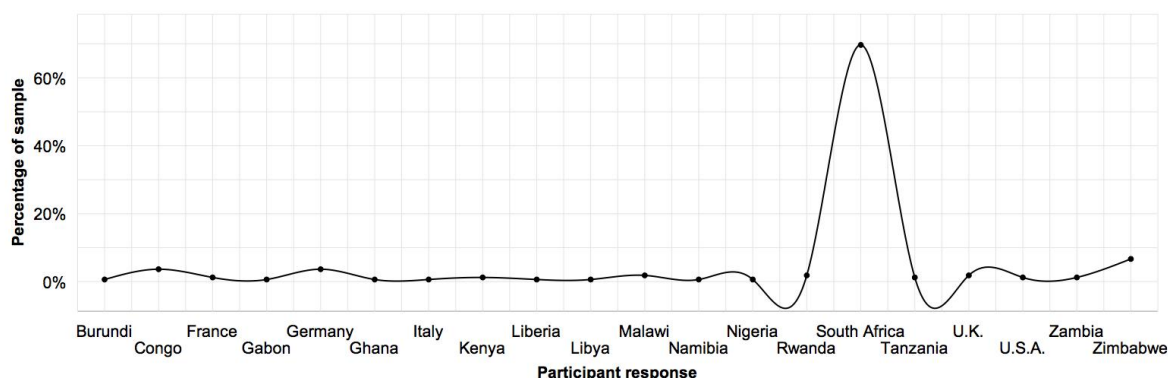


Figure 6.4: Participant country of birth

Figure 6.4 above provides an overview of the sample's country of birth, and Figure 6.5 below, the sample's country of residence. The four most prominent countries of birth are South Africa (69.7%), Zimbabwe (6.7%), Congo (3.6%), and Germany (3.6%). The four most prominent countries of residence are South Africa (89.1%), Zimbabwe (1.8%),

¹¹⁴ These invalid cases were due to one participant exiting the experiment midway, and thirty-three cases that were rendered invalid due to technical complications that arose from the instrument or its supporting infrastructure.

Germany (1.8%), and the United States of America (1.8%). If the two figures and their prominent countries are read together, two observations can be made.

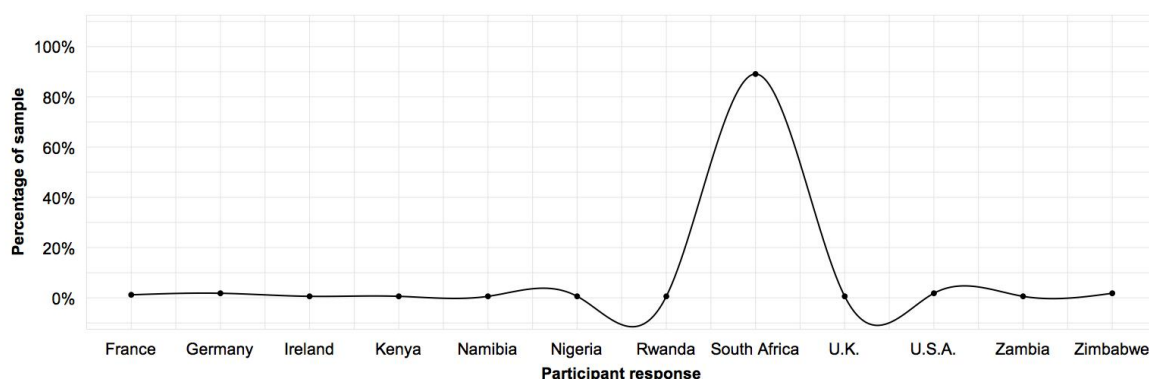


Figure 6.5: Participant country of residence

The first observation concerns the sample's cultural diversity across both the country of birth, and the country of residence figures. As far as continental depiction is concerned, Africa is well represented in the sample, with participants representing all "corners" of the continent; Europe and North America are partially represented; South America, Australia, and Asia are not presented. The second observation concerns movement. If the represented countries in Figure 6.4 are compared with those of Figure 6.5, patterns of emigration are evident from Burundi, Congo, Gabon, Ghana, Italy, Liberia, Libya, Malawi, and Tanzania. The percentage increase of individuals born in South Africa (69.7%), to individuals residing in the country (89.1%), indicates that South Africa is an immigrant destination. Although this pattern may well be due to conflict and diaspora¹¹⁵, from a sample perspective, it reveals that the sample embodies a first-generation quality. Relative to cosmopolitanism, the data is arguably culturally richer, as a second-generation individual may have assimilated, unknowingly or intentionally, to a country's normative behaviours.

The sample's gender profile consisted of males (64.8%), females (35.2%), and other (0%). The male majority was addressed at the hundred-case mark, and during fieldworker debriefing, a request was put forward to recruit more female participants in order to avoid a gender bias (Qually, 2016). Although attempts were made, male participants actually increased in majority, and it is possible that the case study is simply more frequented by males, or that females were not willing to participate. In addition, and if related with the first phase of fieldwork, this bias corresponds with Section 5.3.1, and Long Street's sexualisation of gender and urban masculinity. With regard to the lack of cases for the

¹¹⁵ Boaden (2002, p. 8) estimates that the number of "African foreigners coming to the Western Cape looking for a 'better life' and presently living here to be of the order of 30 000 to 50 000 people".

gender “other”, the fieldworker noted that a recruited individual who dressed in woman’s clothing, selected male as gender.

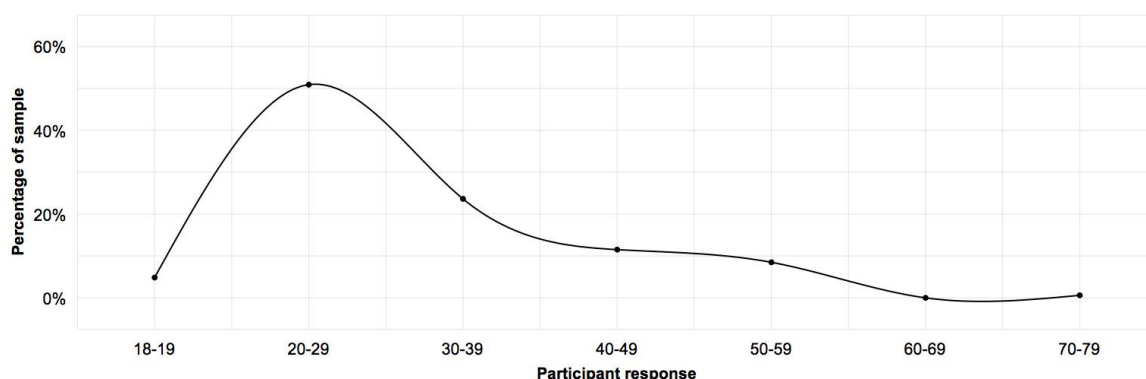


Figure 6.6: Participant age

Figure 6.6 above indicates that the majority of participants were in their twenties (50.9%). There is a steep decrease to individuals in their late teens (4.8%), thirties (23.6%), forties (11.5%), fifties (8.5%), and seventies (0.6%). The results are perhaps not a surprise for a case study that has a high quantity and densification of entertainment venues and retail outlets catering for young adults. For example, the number of bars, nightclubs, and retail outlets, such as extreme sports and fashion boutiques, arguably cater for a relatively younger market. However, the figure also serves to highlight a potential bias due to the majority of the sample comprising individuals in their twenties.

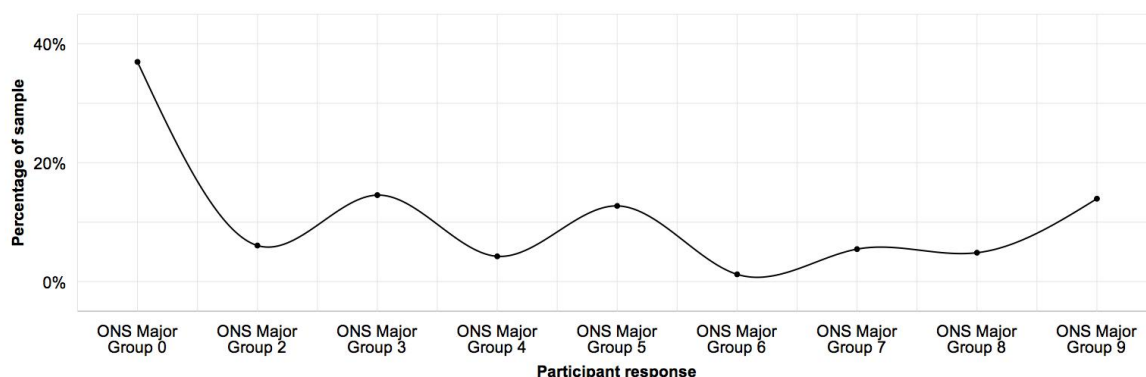


Figure 6.7: Participant occupation

An overview of the sample’s occupation is provided in Figure 6.7 above. The columns are derived from the Standard Occupational Classification (ONS, 2010), except for ONS Major Group 0, which was specifically created for the research. This group, which is notably the largest (37.0%) of the sample, is comprised students, self-employed, unemployed, or retired individuals. In other words, it represents cases that arguably have the lowest occupational or financial agency across the sample. The group is of interest, as it provides a means with which to unpack the contentious relationship between financial capital and urbanisation, which the literature review Section 2.2.4 noted to be a component of participation. The ONS Group 0 also provides a means with which to unpack the

paradoxical relationship between financial agency and notions of Ubuntu, which was introduced in the second phase of fieldwork in Section 5.3.5.

The three other peaks in the sample’s occupation warrant some consideration. The ONS Major Group 3 comprised designers, artists, authors, writers, musicians, producers, directors, photographers, and marketers. In other words, they are individuals preoccupied with creative output. The size of this group (14.5%) is perhaps not a surprise for the case study delineation, as the street and surrounding areas both attract and support this group. For example, as discussed in Section 5.3.1, Long Street’s social environment is one of creative expression, and from a business perspective, this is also evident in the number of design firms and mobile workspaces that occupy the street.

The two remaining prominent groups are dissimilar to the former, as they are also intrinsically linked with the effective operation of case study infrastructure. ONS Major Group 5 (12.7%) comprises chefs, vehicle technicians, mechanics, electricians, farmers, those in agricultural and fishing trades, bricklayers, and masons. ONS Major Group 9 (13.9%) comprises waiters, bar staff, security guards, elementary cleaning occupations, and parking and civil enforcement occupations. These two groups are, in effect, financially enabled by the case study. In addition, their attitude to groups with low financial agency is of particular interest, as they may not be considered supportive of these groups’ livelihoods.

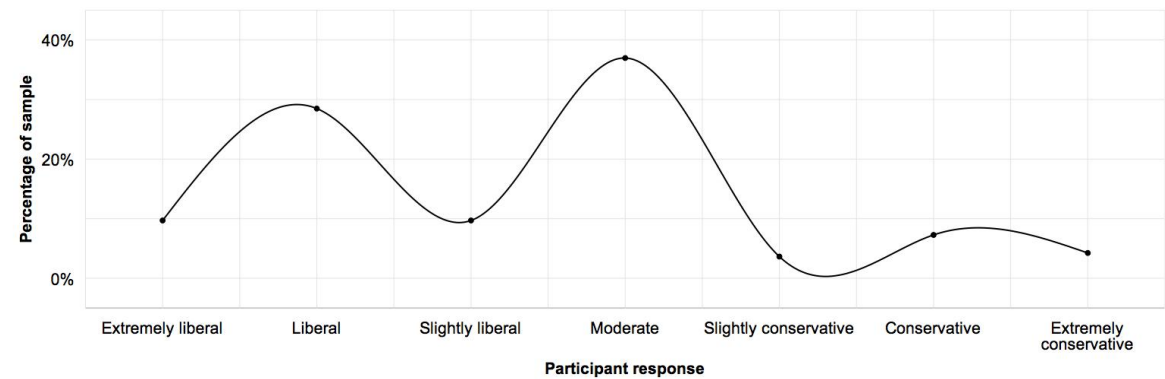


Figure 6.8: Participant political outlook (PolView)

The sample’s political outlook, using the seven-point PolView scale, is provided in Figure 6.8 above. The purpose of including a PolView scale in the study was done in order to understand how the participant identified with established political categorisation. Understandably, this variable is not without problems; for example, what is considered liberal by one individual, may not be considered liberal by another. Similarly, a participant may identify with a political outlook in public, yet in private, carry out acts that are in direct contravention to such a category. To some degree, these concerns are a continuation of

Section 1.2, and Shook's (2009) concerns that linear political spectrums have theoretical deficits. However, the figure does provide some useful insights.

For example, although the sample embodies a noticeably moderate (37%) political outlook, it leans towards a liberal outlook. This is due to other larger sample ratios being liberal (28.5%), slightly liberal (9.7%), and liberal (9.7%), and the conservative political outlooks being well below these percentages (3.6% to 7.3%). Looking closer at the figure's peaks and troughs, it is of interest to observe that the pure, or concentrated outlooks take preference. In other words, the moderate, liberal, and conservative outlooks are greater than their "slightly" and "extremely" neighbours. Although the questionnaire was not designed to interrogate this pattern, if read with Section 1.1, and the view that South African politics is often polarised and populist, it does suggest that the sample has a low interest or awareness of political pluralism.

The sample's recent voting profile reveals that a large percentage did not vote in the last election (46.7%), with a slightly smaller percentage voting for the same party (41.2%), and a minority (12.1%) having changed their voting pattern. This sample includes foreigners who may not have had the right to vote in South Africa, and a refinement of the data has been performed to reflect only those participants who were both born in, and, at the time of the study, resided in South Africa. Using such criteria, the sample size is reduced to 113 cases, however, the results remain fairly similar. The profile reveals the following results: did not vote in the last election (37.2%), voted for the same party (50.4%), and changed their voting pattern (12.4%). Although fewer South Africans appear to have abstained from voting, this offset increased individuals voting for the same party, and virtually the same percentage of South Africans did not change their voting pattern. The distributions suggest that the sample, either limited to South Africans or inclusive of foreign participants, lacks interest or dynamism within structural politics.

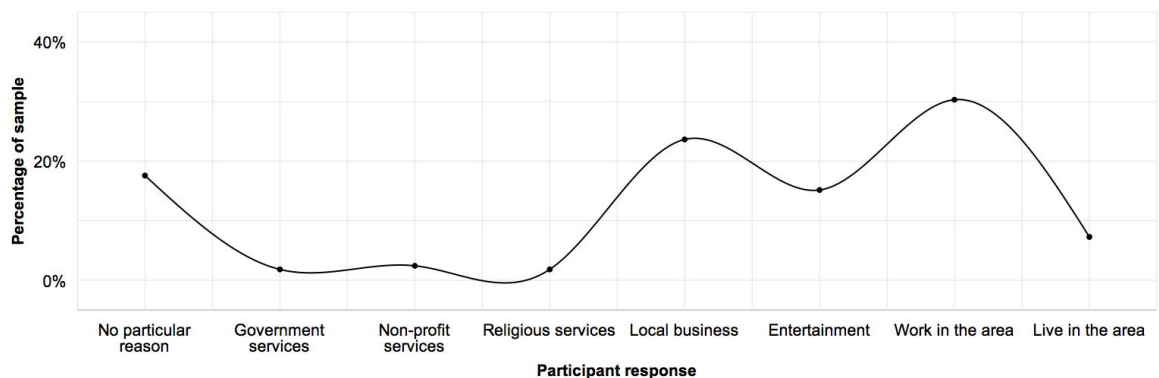


Figure 6.9: Participant representative sub-unit

The main reason for the participants being in the case study at the time of the research is provided in Figure 6.9 above. As the figure notes, the highest frequencies are for

individuals who work in the area (30.3%), and individuals visiting local businesses (23.6%). The next two highest frequencies are for individuals who were in the case study for no particular reason (17.6%), or for the purpose of entertainment (15.2%). Although these results reveal a particular commercial and recreational interest in the street, they are perhaps indicative of the fieldwork being conducted on a weekday between 09h00 and 16h00. However, they do provide a means with which to juxtapose participant to the phase one key participants' collated under the same sub-unit.

The results from the two case study questions, which concern the built environment and the use of the CCTV camera (Surveillance) and Security lighting (Deterrence) in Long Street, reveal surprising distributions. A majority of participants stated that the security lighting (98.8%) and CCTV cameras (91.5%) should be turned ON, and only a small sample (1.2%) stated that both the security lighting and CCTV camera should be in an OFF state. Such choices were unexpected, particularly if read in conjunction with the literature review's discussion in Section 2.2.2, and concerns of ICT on privacy. These distributions challenge the extent to which the public is believed to be concerned about their rights and privacy being infringed upon, or the willingness to subject each other to instances of security and surveillance. Due to the design of the Ai code, which overwrote and did not delete computer files, CCTV photographs of the last fieldwork session could be saved. Examples of these images are provided in APPENDIX F, and due to confidentiality, the participants' faces have been concealed.

This section of the chapter presented the sample demographics for the second phase of fieldwork. Distributions and subgroups were discussed, and in some cases, related back to the first phase of research and the literature review discussions. The following notable sample characteristics will be referred to in the next section: a majority of the participants were South Africans, half were in their twenties, a third had low financial agency, and a majority tended towards a moderate and liberal political outlook.

6.3 PRESENTATION AND DISCUSSION OF EXPERIMENT

This section introduces and discusses the six political statements, and the efficacy of the Abductive instrument (Ai) in influencing how each was answered. Each statement is presented and discussed with an accompanying figure plotting the two datasets; the first represents the participant response before using the Ai, and the second, the response thereafter. For ease of reading, the first dataset is shown as a dashed line, and the second, a solid line. The discussion for each political statement will follow a common approach. Deviations between the two datasets are established, and if required, further unpacked with demographic data. The implication of the change in distribution is

discussed in relation to the literature review findings, the first phase of fieldwork, and ultimately, the research problem.

6.3.1 ANOTHER COUNTRY INFLUENCING MY RIGHTS AND JUSTICE

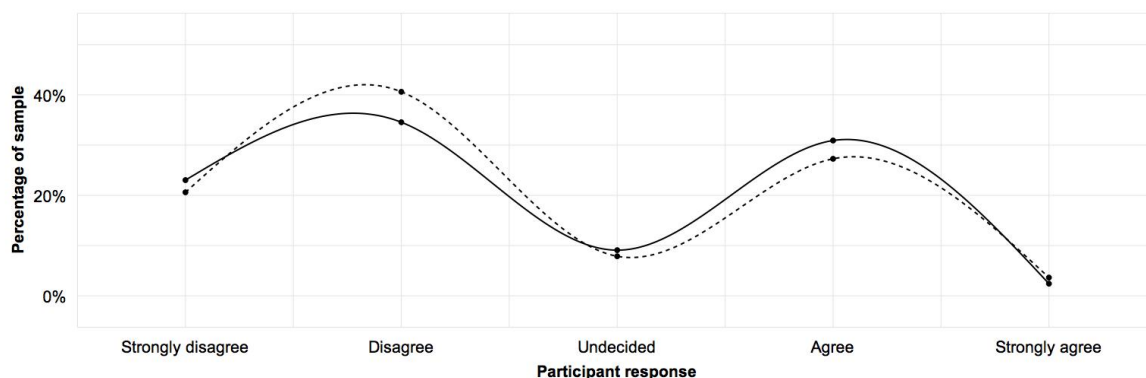


Figure 6.10: I am ok with another country influencing my rights and justice

Figure 6.10 above shows responses to the political statement that are concerned with how participants regarded another country influencing their rights and justice. The distribution suggests that the sample was initially not in favour of such an influence (Dashed line), but following the Abductive instrument (Ai) experiment, became more receptive to it (Solid line). The slight increase in strongly disagree (20.6% to 23%), and decrease in strongly agree (3.6% to 2.4%), is comparatively less than the shifts for disagree (40.6% to 34.5%) and agree (27.3% to 30.9%). The undecided participants remained fairly consistent (7.9% to 9.1%).

Table 6.1: Participant rights and justice relative to country of birth

		Participant country of birth																			
		Burundi	Congo	France	Gabon	Germany	Ghana	Italy	Kenya	Liberia	Libya	Malawi	Nigeria	Rwanda	South Africa	Tanzania	UK	USA	Zambia	Zimbabwe	Total
Ai	Strongly/Disagree	0	4	1	1	4	1	1	0	0	1	0	0	1	76	0	2	2	2	5	101
	Strongly/Agree	1	1	1	0	1	0	0	2	1	0	3	1	2	31	1	1	0	0	5	51
	Strongly/Disagree	0	2	1	1	3	1	1	0	0	1	0	0	1	74	1	2	2	1	4	95
	Strongly/Agree	1	4	1	0	2	0	0	2	1	0	2	1	2	30	1	1	0	1	6	55

Due to the political statement being preoccupied with country level relationships, the participant demographic - country of birth - is used to explore why a shift in attitude occurred after the Abductive instrument (Ai) experiment. Table 6.1 above provides a multivariate view of this relationship. To help manage the volume of data, the extreme or “strongly” categories have been collapsed into their base category. The first two rows indicate the participants’ response before the experiment, and the last two rows, their response after having used the Abductive instrument (Ai) method. Colour coding

highlights the sample's change in attitude; black indicates an increase in receptiveness with the political statement, white indicates a decrease in receptiveness, and grey, no change in attitude. These table design considerations apply to the remainder of the chapter.

A review of the table's general distribution suggests that participants born in Occident countries tended to disagree with having another country influence their rights and justice, and that the Ai had little, if any, influence in changing this attitude. See, for example, France, Italy, UK, and the USA. Although the German participants remained in disagreement, they became slightly more agreeable with the Ai. Participants born in African countries had a more varied response. Some countries echoed the Occident steadfast disagreement, such as Gabon, Ghana, Libya, and South Africa. The remainder of the African countries either initially agreed with the statement, or were influenced into such favour following the Ai. See, for example, Burundi, Congo, Kenya, Malawi, Nigeria, Rwanda, Zambia, and Zimbabwe.

Reflecting on the literature review in Section 3.2.3, and acknowledging that only a small number of participants are reflective of their country of birth, the data is suggestive of Held's (1992) perspective on geopolitics, citizenship, and the interplay between justification and the restraint of sovereign state power. The initial results reflect the majority of participants disagreeing with another country from exerting power over their rights and justice. Yet, after use of the Ai, participants from certain African countries became supportive of an external influence. The most dynamic change in attitude is from the Congo, where participants effectively inverted their attitude.

Disagreement from the African countries is fully understandable, if viewed from a historic and diaspora perspective. The influence and effects of the twentieth century may have had a lasting effect. For example, Belgium's "brutal imperial administration" (Stanard, 2012, p. 47) serves as a horrific reminder of how foreign influences can devastate indigenous rights and justice. Although less violent, Zambia and Zimbabwe having been occupied by the British, may have resulted in a certain attitude to foreign influence. Closer to the case study, the South African 2008 xenophobic attacks may be a contemporary reminder for immigrants that their host country can also contravene their rights and justice.

Although plausible, these factors do not explain the shift, or the lack thereof, following the use of the Ai experiment. African countries tended towards agreeing with foreign influence, and the Occident countries remained relatively steadfast and disagreeable. Such a distribution could simply be due to sampling, as African countries are in the

majority. Had more Occident participants been recruited, and in a similar manner to what occurred with Germany, a shift to agreeing with foreign influence may have been observed. This geopolitical stance can also be interpreted as a semantic of colonisation, where the Occident is concerned with sovereignty, and Africa, with assimilation. However, this would only be the case if the Ai dataset is read independently, and not as a shift in attitude. After all, it was the participants who shifted favour to include foreign influence.

With regard to the research problem, this last point provides some evidence that the Abductive instrument (Ai) helped certain African participants participate with democracy. The respondents were able to engage with the political statement of another country influencing their rights and justice, in an active and internal manner. This is quite different to the historic relationships, where foreign relationships were frequently forced and coerced onto Africa. The initial disagreement is a reactionary continuation of the colonial legacy, and it can be argued that the shift to agreeing with the statement, is an example of decolonisation facilitated by design. Consider how the Ai allowed for a more complex and immersive participation to occur. It not only allowed the participants to review a subconscious imperative, but also to form cross-country relationships based on new terms, that is personal agency.

6.3.2 MY COUNTRY MAKING ITS BORDER MORE OPEN TO FOREIGNERS

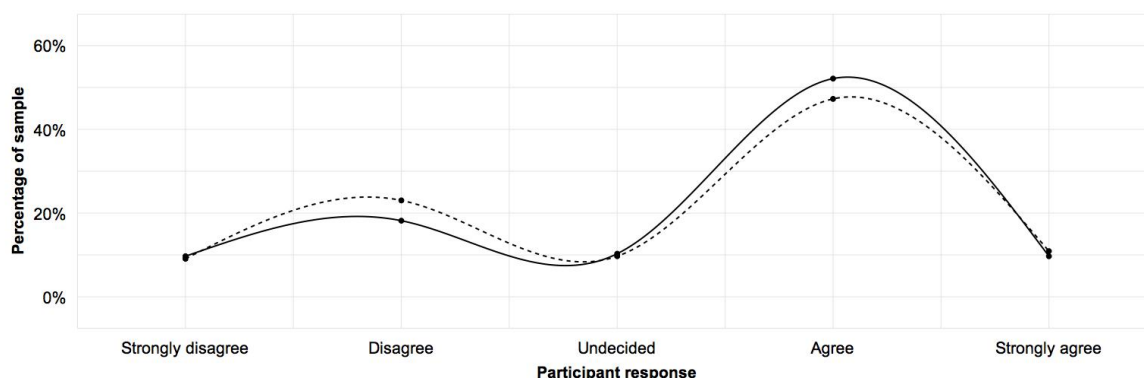


Figure 6.11: I am ok with my country making its border more open to foreigners

Figure 6.11 above shows responses to the political statement concerned with the porosity, or importance, placed on a country's border. A review of the figure suggests that the sample initially mostly agreed (Dashed line) with opening their country's border to foreigners, and this distribution increased following the Abductive instrument (Ai) experiment. This caused a decrease in disagreement (22.8% to 18%), and an increase in agreement (46.7% to 51.5%). The other three attributes, strongly disagree (9.0% to 9.6%), undecided (10.2% to 10.2%), and strongly agree (11.4% to 9.6%), remained relatively consistent.

Table 6.2: Participant opening their country's border to foreigners' relative to political view

		Participant political outlook							
		Extremely liberal	Liberal	Slightly liberal	Moderate	Slightly conservative	Conservative	Extremely conservative	Total
	Strongly/Disagree	3	15	3	24	3	5	0	53
	Strongly/Agree	13	29	10	29	2	7	6	96
Ai	Strongly/Disagree	2	14	2	20	3	5	0	46
	Strongly/Agree	14	30	11	32	2	7	6	102

Table 6.2 above uses the political view (PolView) scale to unpack why the sample is mostly in agreement with making its border more open to foreigners. This juxtaposition explores the abstract and ethereal quality of a political view, with the artefactual and pervasive characteristic of a country's border. The extreme, or "strongly", categories are again collapsed into their base category, and the cells are highlighted to show what type of change in attitude accompanied the Ai experiment.

The initial dataset reveals that the three liberal political views are typical of the distribution in Figure 6.11, where agreement is well above disagreement, and the moderate view is evenly distributed. The extremely conservative view is surprising, as these participants only agreed with opening their border to foreigners. The second dataset and results of the Ai experiment show a comparable distribution, with only a slight change in attitude for participants with liberal and conservative political views. Perhaps to be expected, the liberal views further agree with the political statement, and the conservative views either remain consistent, or move towards disagreement. However, as the table reveals, these shifts are minor, and it is those participants with a moderate political view that contributed to the overall increase in favour of their country's border being more open to foreigners.

The extent of agreement with the political statement may have more to do with sample selection than the physicality of a border. The majority of the participants are South African, and due to this country being mostly bordered by coastline, the very idea of opening a country's border to foreigners is erroneous, or an inconsequential concern. Similarly, if read in conjunction with Section 3.1.1's literature review discussion on how African borders are non-indigenous artefacts, the attitude to agreeing with the political statement is perhaps more reflective of normative behaviours. Such borders may well be documented on maps, yet their capacity to impede movement is questionable.

For this political statement, the efficacy of design in incubating democracy is evident in the shift in attitude of participants with a moderate political view. Relative to the participants

with liberal or conservative views, this group's percentage, for favouring the opening of their country's borders to foreigners, had a greater increase. In doing so, and from an African diaspora perspective, this is a personal sacrifice. Consider that at the time of writing, the South African unemployment rate was at 26.7% (Statistics South Africa, 2016b), and by agreeing to open their country's border to foreigners, workforce competition will increase. By activating and internalising notions of security and surveillance, it is conceivable that the Ai may have persuaded the participants with moderate political views to act with empathy.

6.3.3 OTHER CULTURES, LIFESTYLES, AND CHOICES INFLUENCING ME.

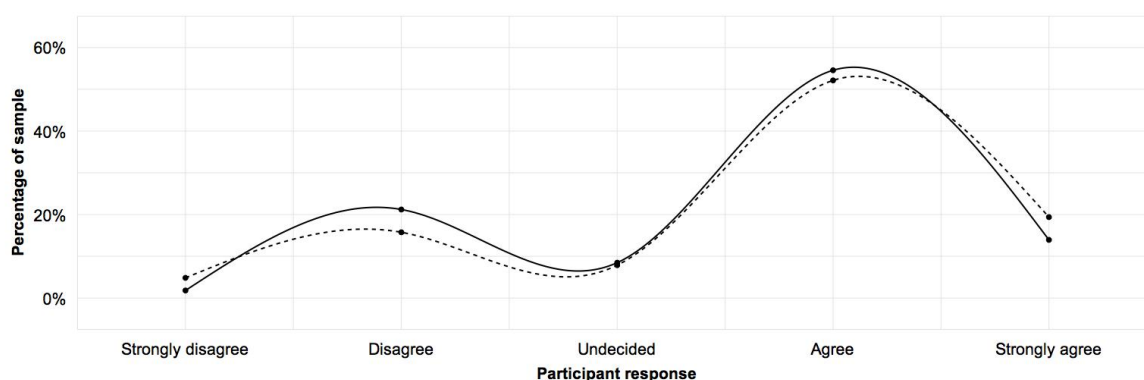


Figure 6.12: I am ok with other cultures, lifestyles, and choices influencing me

Figure 6.12 above shows responses to the influence of other cultures, lifestyles, and choices. Although the distribution notes that the sample initially (Dashed line), and mostly, agreed with the statement, the distribution becomes slightly more contested following the Ai experiment (Solid line). Participants who selected the extreme attributes - strongly disagree (4.8% to 1.8%) and strongly agree (19.8% to 13.8%) - shifted their views to disagree (16.2% to 21%) and agree (51.5% to 53.9%) respectively. Those participants who were undecided remained fairly consistent (7.8% to 8.4%).

Table 6.3: Participant openness to other cultures, lifestyles, and choices relative to age

		Participant age						Total
		18-29	20-29	30-39	40-49	50-59	70-79	
Strongly/Disagree		0	16	7	7	4	0	34
Strongly/Agree		8	56	31	12	10	1	118
Ai	Strongly/Disagree	0	22	6	7	3	0	38
	Strongly/Agree	8	54	29	12	9	1	113

Table 6.3 above juxtaposes the sample's age demographic relative to attitude regarding other cultures, lifestyles, and choices influencing them. This additional variable provides the opportunity to explore the political statement relative to generational dynamics, and to some degree, technology. The collapsing of the extreme, or "strongly", categories is

particularly revealing in this table, as it reveals which group increased their disagreement with this statement following the Ai experiment. Bearing in mind that the sample is biased towards individuals in their twenties, the participants between 18 and 39 years of age form the main group that develops a disagreement with the statement.

The efficacy of the Ai in changing the participants' attitudes is of particular interest to the research problem, as it appears to have stimulated a decrease in notions of democracy. This is perhaps an exaggeration, as decreasing in favour of the influence of other cultures, lifestyles and choices, is not the same as denying such influences. However, it does allude to the issue of heterophilia, which was discussed in the literature review in Section 3.2. It was this desire for cultural diversity that was noted to impact the potential for democracy to grow in an increasingly globalised world.

For the sample, and the 20 to 29 age group in particular, the initial agreement was perhaps reconsidered when the influence of other cultures, lifestyles, and choices was stimulated by the Ai as not being desirable. Consider how activating and internalising the participants' experience with the CCTV camera (Surveillance) and security lighting (Deterrence), may have introduced a real-world consequentiality to digital interactions; in particular, how the choices of others, can have a direct bearing on their livelihood. In some respects, this is in direct contrast to the inconsequentiality of, for example, the social networking of digital experiences, in which an actor can be shielded by technology or pseudonym.

6.3.4 DOING THINGS THAT CONTRADICT MY PRINCIPLES OR BELIEFS

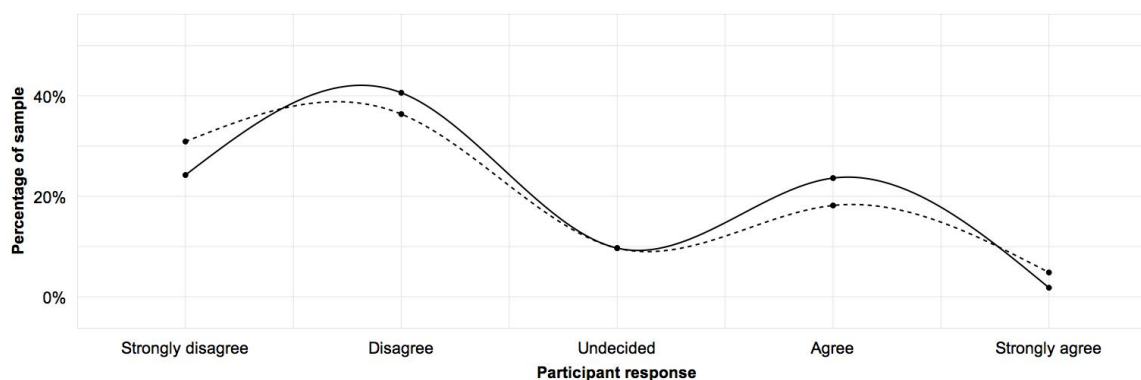


Figure 6.13: I am ok with doing things that contradict my principle or beliefs

Figure 6.13 above shows responses to the political statement concerned with participants doing things that contradict their principles or beliefs. The distribution notes that the sample initially mostly disagreed with the statement (Dashed line), and although disagreement remained prominent following the Ai experiment (Solid line), the extent of extreme or strong attitudes decreased. Both the strongly disagree (30.9% to 24.2%) and

strongly agree (4.8% to 1.8%) were reduced, and due to the undecided (9.7% to 9.7%) attitude remaining exactly the same, the disagree (36.4% to 40.6%) and agree (18.2% to 23.6%) categories absorbed the overall shift in extreme attitudes. This change in distribution suggests that the Ai influenced the sample to be amenable to doing things that contradicted their own principles and beliefs.

Table 6.4: Participant contradicting principles or beliefs relative to voting patterns

		Participant recent voting pattern			
		Did not or do not vote	Same political party	Different political party	Total
Ai	Strongly/Disagree	49	49	13	111
	Strongly/Agree	23	11	4	38
	Strongly/Disagree	45	49	13	107
	Strongly/Agree	23	14	5	42

Table 6.4 explores the sample's change in attitude to the political statement relative to recent voting patterns. By reviewing this relationship, the sample's appreciation of pluralism, both as a personal characteristic and as a political party alliance, can be further understood. The distribution in the table indicates that the majority of participants who disagreed with the statement, either did not vote or voted for the same party, and the participants who voted for a different political party are in the minority. This pattern is evident both before and after the Ai experiment. In all instances, no disfavour towards the political statement is evident; there is either a small increase in favour, or a uniform attitude.

The distribution provides some indication of how design can influence an individual's engagement with politics. Consider how the participants who did not, or do not, vote tended to favour doing things that contradicted their principles or beliefs after the Ai experiment. Although this is arguably of normative political relevance, it introduces the notion that design can incubate a form of dissonance, and that personal principles and beliefs are not static. The change in distribution for the participants who voted for the same political party suggests that beliefs and principles coupled with structural politics can be influenced by design. Although the broad nature of the political statement does not allow for this point to be further interrogated, it does provide another perspective on Section 2.3.2, and how publics engage with political party policy. Design may be able to influence how publics engage with such policy, from being one of personal affiliation, to one of critical reflection.

This last point has particular relevance to South Africa's political landscape. In particular, the enduring influence of the country's historic political philosophy, Calvinism, which was discussed in Section 3.2.2, and the contemporary populist rhetoric connected with party

allegiance, as discussed in Section 1.1. Both these pre- and post-Apartheid examples are coupled with principles and beliefs, which, in turn, may motivate for a certain political stance. However, if such causality is read with Table 6.4, it is possible that the Ai activated and internalised principles and beliefs as real world actions, and not as the phenomena it ascribed to. For example, policy or even religious principles.

6.3.5 A COMMUNITY'S BEHAVIOUR DRIVING GOVERNMENT POLICY

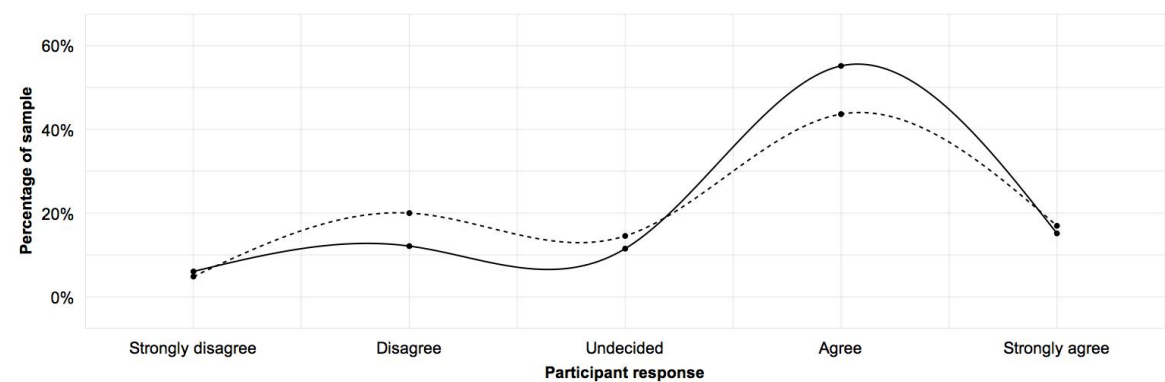


Figure 6.14: I am ok with a community's behaviour driving government policy

The Figure 6.14 above reveals the sample's response to the political statement regarding a community's behaviour driving government policy. The distributions show an initial support for the statement, which dramatically increases following the Ai experiment. The greatest shifts in favour came from participants who disagreed (20% to 12.1%), and participants who agreed (43.6% to 55.2%). Such change in percentage overshadows the disfavour in the remaining categories: strongly disagree (4.8% to 6.1%), undecided (14.5% to 11.5%) and strongly agree (17% to 15.2%).

Table 6.5: Participant community behaviour driving government policy relative to sub-unit

		Participant sub-unit								
		No particular reason	Government services	Non-profit services	Religious services	Local business	Entertainment	Work in the area	Live in the area	Total
	Strongly/Disagree	8	0	1	0	10	4	15	3	41
	Strongly/Agree	12	3	3	0	25	19	30	8	100
Ai	Strongly/Disagree	7	0	1	1	6	1	10	4	30
	Strongly/Agree	16	3	3	1	31	19	37	6	116

Table 6.5 above unpacks the sample's favour towards a community's behaviour driving government policy, relative to the reason each participant was in Long Street at the time of the research. This multivariate overview develops the notion of community from being a singular homogenous group, to being multiple and competing groups. These categories are also a direct correlation to the sub-units used in the first phase of research, and

therefore, provide the opportunity to further develop the key informant claims and observations.

The majority of the sample - participants who worked in the area - were visiting a local business, seeking entertainment, or in Long Street for no particular reason. Although their support for a community's behaviour driving government policy was initially highly, after the Ai experiment, this further increased in support. The participants who were in Long Street for religious services, either visiting a mosque or church, shifted from an undecided category to an equal agree and disagree attitude. Although still in agreement, the participants who live in the area demonstrated the greatest shift towards disfavouring the political statement.

It is the residential, and to some degree, religious practitioner sub-units that reveal a neoliberal agenda. In particular, under notions of ownership that was discussed in the literature review in Section 2.2.1, and what emerged in the first phase of research in Section 5.3.4. These two groups are both invested in the street, be it physically in the form of an apartment, church, or mosque, or immaterial, when residents aim to maintain a lifestyle and religious practitioners, an authoritative worldview. Following the Ai experiment, it is possible that these sub-groups became aware of how their established and traditional affordances could have been challenged by transient agencies, which were not underpinned by a territorial advantage or moral authority. For example, if resource poor visitors to Long Street used design and technology to mobilise against assumed modes of power.

It is arguable that the Ai amplified concern for the religious and residential communities by introducing an agency that is common to both permanent and transitory communities. The ability for a participant to dynamically manipulate an environment they do not live in, but do frequent, starts to challenge the prevailing affordances coupled to neoliberal trajectories. Residents' expectations that accompany local rates and taxes, or demands of local government from pressure groups such as resident associations, may give way to an anonymous and distributed agency. The concept of a relevant community becomes more authentic, yet, increasingly more complex.

6.3.6 GETTING INVOLVED IN CREATING GOVERNMENT CHANGE

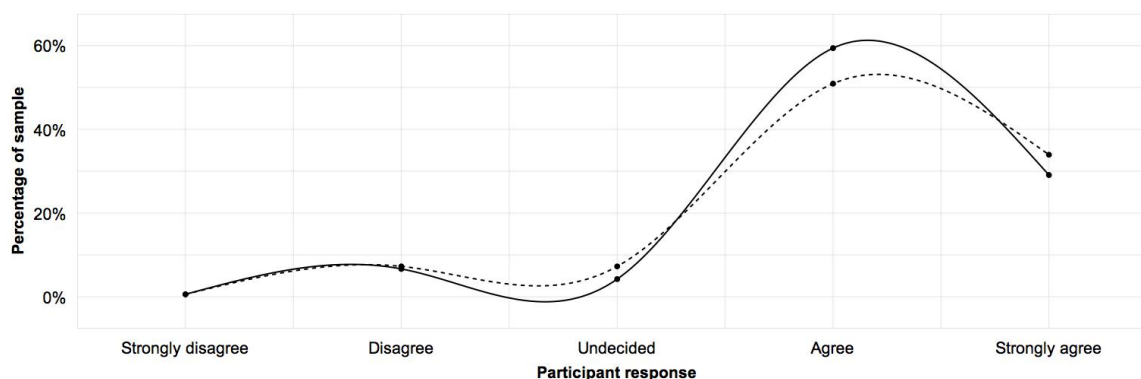


Figure 6.15: I am ok with getting involved in creating government change

Figure 6.15 above shows the response to how the participants responded to personally getting involved in creating government change. There is a majority in initial agreement with the statement (Dashed line), and following the Ai experiment (Solid Line), an increase in favouring involvement, with a drop in disagree (7.3% to 6.7%) and undecided (7.3% to 4.2%), and in turn, an increase in agree (50.9% to 59.4%). Strongly disagree (0.6% to 0.6%) remained consistent, and only strongly agree (33.9% to 29.1%) decreased in favour of getting involved in creating government change.

Table 6.6: Participant getting involved in creating government change relative to occupation

		Participant occupation									
		ONS Major Group 0	ONS Major Group 2	ONS Major Group 3	ONS Major Group 4	ONS Major Group 5	ONS Major Group 6	ONS Major Group 7	ONS Major Group 8	ONS Major Group 9	Total
	Strongly/Disagree	1	0	1	1	5	1	0	1	3	13
	Strongly/Agree	56	9	20	6	15	1	9	7	17	140
Ai	Strongly/Disagree	0	0	2	1	3	1	0	1	4	12
	Strongly/Agree	57	9	21	6	17	1	9	7	19	146

Table 6.6 above provides a juxtaposition of the sample's attitude towards getting personally involved in creating government change relative to occupation. The multivariate overview provides the opportunity to explore the favourable position of personally getting involved in creating government change, relative to specific employment. In doing so, it provides a means with which to unpack the probability of participation and influence by, for example, financial agency, available time, relative influence, and invested interest.

The initial distribution indicates that the main contributor to favouring getting involved in creating government change, is from the ONS Major Groups 0 and its participants who have an unpredictable financial agency; for example, unemployed, self-employed,

student, or retired. However, three other groups also contributed to this position: ONS Major Group 3 and its participants who are preoccupied with creative industries, for example, designers, artists, and authors, ONS Major Group 5 and its participants who offer skilled labour, for example, chefs, technicians, and bricklayers, and the ONS Major Group 9 and its participants who offer elementary occupations, for example waiters, security, and cleaners.

Following the Ai experiment, groups with a relatively large sample size changed their attitude, and the smaller groups remained consistent with their original attitudes. The ONS Major Group 0 is of particular interest, as following the Ai experiment, all participants favoured getting involved in creating government change. Although there was an increase in favour from one participant, of a sample size of 57 cases, it is surprising that no participants from this group disagreed with the political statement. ONS Groups 3 and 9 were slightly more dynamic in this regard.

If the ONS Major Group 0 is read with notions of participation in Section 2.2.4, the initial favouring of getting involved in creating government change is perhaps to be expected. For example, getting involved in creating government change may fulfil an impetus to improve one's financial worth. Although, in a South African context, this could well be construed as looking to benefit from illegitimate state patronage¹¹⁶; it could also be a move to participate in the formation of state policy in order to favour one's community. The initial favouring of the political statement should also be considered in relation to the questionnaire, and that its sequence may have amplified a reactionary response. For example, the initial questions, which prompted a response to external agency, such as country, culture, lifestyle, or belief level, may have resulted in the participant emphasising personal agency and control by favouring direct participation.

Although these points may also explain the increase in favour to participate in change following the experiment, it is arguable that the change is also due to the alignment of the Ai to the political statement. Consider the literature review discussion of e-Governance in Section 2.2.2, and how the use of technology that is similar to the Ai is increasingly being used to mediate state and public relationships. It is, therefore, possible that the Ai suggested a new modality of getting involved in creating government change - one that is unlike the existing bureaucratic led interactions, and that is rather a reciprocal exchange of agency. If a participant can control a floodlight and CCTV camera in their immediate

¹¹⁶ Corruption Watch (2016, pp. 11-13) defines corruption as the "abuse of public resources or public power for personal gain"; and that South Africa's Corruption Perception Index (CPI) score of 45/100 indicates a "significant corruption problem in the country".

surroundings, it is possible that they make the conceptual link to using technology to participate in creating government change.

6.3.7 PARTICIPANT COMMENTS

The second phase of fieldwork concluded with a comments section, which allowed each participant to reflect on the experiment. This was not obligatory, and fifty-four participants chose to complete this section. APPENDIX G provides all responses, and a few notable patterns and comments require discussion. The first is a pattern that the feedback tends to be mostly complimentary of the questions or method employed. Such feedback contrasts with the fieldwork memo (Qually, 2016), where it was revealed that participants expressed unwarranted concerns about the CCTV camera (Surveillance). One participant asserted that she would not have taken part in the research had she been made aware of the research method, and warned the fieldworker not to circulate her image on social media. Her concern was unwarranted and covered in Section 4.4.5 as being confidential.

Where the positive responses suggest that the South African public is receptive to experimenting with political concepts using design methods, the negative feedback provides insight on the sub-question concerning participation. The participant's concern points to the invasion of privacy argument as discussed in Section 2.2.2, however, the lack of acknowledgement of responsibility for actioning the CCTV camera (Surveillance) was of interest. It is paradoxical, and caught up in a dichotomy of being unhappy about one's own expressed agency. Yet, such distressed reflection is a notable insight that was induced by the Ai experiment. For this participant, it is possible that public security may have evolved from being a concern of managing others, to a fear of being personally objectified. As far as notions of democracy are concerned, this is a beneficial development, as it has, in effect, prototyped what many in the population experience on a daily basis.

Another observation of participant comments in APPENDIX G is a pattern of continued discussion of the political statements. Unlike the participants who complimented or expressed concerns about the research, some participants appeared to have remained immersed in the technicality of the experiment. For example, a participant stated that she is "optimistic about the prospects of having publicly accessible cameras around pick pocketing hotspots such as Long Street". It is unclear from this statement if the participant appreciated that the CCTV camera (Surveillance) was used to stimulate political conversation, and that the research did not specifically advocate for CCTV cameras be deployed in Long Street.

6.4 SUMMARY OF KEY CLAIMS

This chapter focused on researching the key observation - responsive publicisation - which emerged from the first phase of research and was discussed in Section 5.4. It argued for a renewed and dynamic understanding of South African public space based on normative behaviour, and not simply state dominion; in other words, a public needs to be actively and dynamically generated. An experiment was used to research this key observation in the case study delineation, and using an Abductive instrument (Ai) underpinned by Experience Design (XD) and Designing For Participation (DFP) methods, comparative data were obtained. It is from this evidence that design was revealed to expose, influence, and articulate political perspectives. The following provides a meta-level overview, and triangulates the experiment findings into four *key claims*, which will be used to answer the research questions in Chapter 7.

- The first key claim is termed *change allowance*, which concerns how the Ai revealed and influenced certain nationalities to be open to political uncertainty. It is firstly motivated by Section 6.3.1, and how the African participants tended to be more open to other cultures influencing their rights and justice when compared with their Occident counterparts, and such a disparity increased after using the Ai. Secondly, the key claim is motivated by Section 6.3.2, and how, regardless of political outlook, the Ai further increased support for a country's borders being opened to foreigners. Although making any claim based on nationality is questionable, as it is ultimately coupled to sample size, country representation, migration, and case study delineation, the data gathered in Long Street suggests that African participants tended to frame political phenomena as relativist. This has an implication for how design facilitates change. For example, if political instruments such as legislation and territory are not bound to a particular period or dispensation, design objects and processes can be employed to assist new and authentic forms to emerge.
- The second key claim is *dynamic spectrums*, which concerns the use of political archetypes within design and democracy research. It is motivated by Section 6.3.4, and how the Ai moderated the sample's extreme views on doing things that contradicted their principles or beliefs; such moderation was noted to include participants who had political patterns of not voting, or voting for the same political party. It supports the view in Section 1.2, that to appreciate democracy, linear political spectrums are inadequately static. As an implication for design, it demonstrates how design objects and processes can contribute to managing political extremism.
- The third key claim involves *occupying participation*, which is an argument to push beyond populist rhetoric of democratic involvement, and to use technology for scenario building. It is firstly motivated by Section 6.3.5, and the sample's preference for a

community's behaviour to drive government policy. Within this sample, and following the use of the Ai, residents began to decrease support for such a drive. It is also motivated by Section 6.3.6, and the extent to which individuals with an unpredictable financial agency supported getting involved in creating government change. The ramification for design, is that the use of deliberation in participatory design projects needs to be challenged with design objects and processes. This is not to suggest that dialogue is unnecessary, or that technology is a solution, but rather to argue that an appropriate use of technology can expose underpinning and unpopular tensions that prevent authentic discussion from occurring in the first place.

- The fourth key claim is termed the *un/wanted self*, which concerns how the Ai helped realise participant agency, and articulate the consequences thereof. It is firstly motivated by Section 6.3.3, and how the sample's initial high favour of another culture, lifestyle and choice influencing them, was reduced by the Ai. Secondly, it is motivated by Section 6.3.7, and how the participants objected to the CCTV camera (Surveillance). By reorienting an individual into the anonymity of the crowd, the abstract nature of public space and agency was grounded. Each participant operationalised Ubuntu's *Umntu ngumuntu ngabantu* / A person is a person through other persons, and in doing so, became subject to their inclination for empathy or prejudice. The implication for design is threefold, and involves objects, processes, and philosophy. For example, it demonstrates the pivotal role of designed objects for research founded on abductive logic, it revisits the dimensions of participation as discussed in Section 2.2.4 on how agonism can be a process of personal reflection, and lastly how, through being informed by IKS/Ubuntu, a largely unexplored form of African centric design philosophy is possible. The following chapter discusses how all four key claims are related to the research problem and research questions.

CHAPTER 7 CONCLUSION AND RECOMMENDATIONS

When the brothers fight to the death, a stranger inherits their father's estate.

Igbo proverb, origination date, and author unknown

Sourced from Ndimele (2016, p. 249)

Within conflict, there is an addictive and brutal intimacy. The combatants are just and true in their anger. Repressed emotions are liberated, and protective measures discarded. Yet, these fighters will ultimately cede to the calm of the voyeur, who, upon entering the fray when their adrenaline is spent, will describe the battle in unfamiliar terms. It is such an analogy that speaks of South Africa, whose father, *Tata*, has passed, and whose estate has become a battleground. The country's wounds increase, and offer causeways to the passing stranger, who, in patient queuing, waits for the brothers' last breath before advancing towards the unrepresented estate.

The real-life problem, introduced in Chapter 1 as a deterioration of South African democracy, is evident in the Igbo proverb. From a practical and empirical standpoint, and if the erosion of institutions that deal with accountability and policing are considered, democracy is under duress. South Africans are battling a dysfunctional state, permeated with corruption and nepotism. If State Capture is concerned, the stranger is in the process of inheriting the state. However, in stepping back from such immediate concerns, and if the real-life problem is viewed from a theoretical perspective, it can be argued that democracy is not deteriorating, but is rather in the process of being reimagined. This is of particular relevance to democracy's wave tendency, and the structural incompatibilities between Occident democratic indices in an African context, both of which were discussed in Section 1.2. In addition, the constitutional remains the highest form of authority in the country, and continues to represent the agency of the people, and as such, South Africa's democracy appears to be functioning by design. On the one hand, it can be argued that South African democracy is not under duress, but is operating in terms less illustrious than its inception, and that to lean towards a fatalist outlook, is to forget that democracy is founded on perpetual struggle. On the other hand, South Africa's Constitutional Democracy is not self-actualising. It requires innovative processes and mechanisms to make it function, and to maintain a national conviction in its worth.

The purpose of this chapter is, therefore, to discuss and conclude the research from a meta-level perspective, by unpacking democracy as struggle, and not as an end goal, whilst evidencing design agency from the literature reviews and fieldwork phases. The chapter comprises three sections. The first is a discussion of the how the thesis addressed the research problem and primary research question: how designed objects,

processes, and philosophy should enable South African democracy. Included in this section is a discussion of the first sub-question: how IKS influences democracy in urban and diverse communities, and the second sub-question: how experimentation facilitates participation in a South African democracy. The second section to be developed in the chapter, is an argument for how the research findings have contributed to knowledge. The third, and final, section is an indication of what future research is planned, and an indication of recommendations on how the findings from this thesis can be extended. Where applicable, the conceptual framework, which was first introduced in Section 1.3, is revisited to assist the discussion, and to plot how the findings are related to each other.

7.1 ANSWERING THE RESEARCH PROBLEM AND SUB-QUESTIONS

This section discusses how the thesis addressed the research problem, answered the primary research question, and answered the two research sub-questions. Each area is discussed in its own sub-section.

7.1.1 HOW THE RESEARCH ANSWERS THE PRIMARY QUESTION

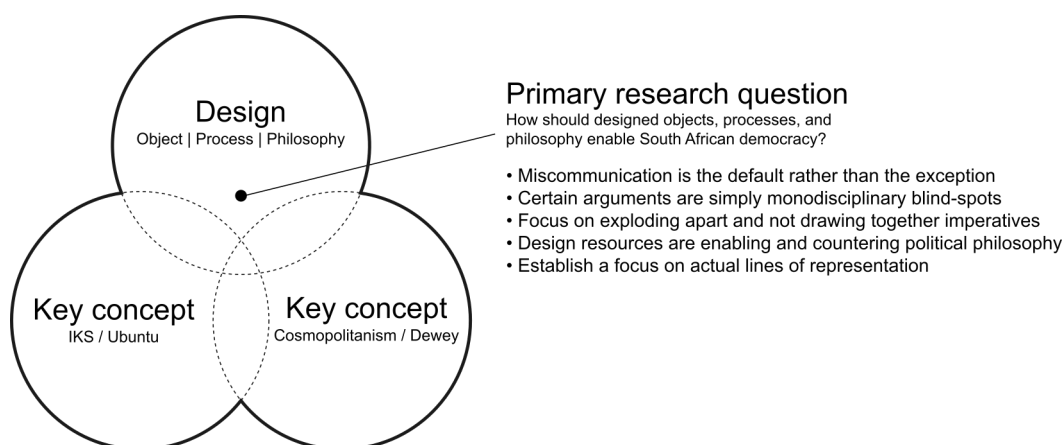


Figure 7.1: Answering the primary research question

The primary research question is concerned with how designed objects, processes, and philosophy should enable South African democracy. Figure 7.1 above indicates where the question is positioned in the conceptual framework. Chapter 1 introduced the use and semantics of the term “should”, and that rather than being prescriptive, it emphasises critical questioning within a range of possibility. With this distinction in mind, the points below conclude how the research answers the primary research question under the following areas: *miscommunication is the default rather than the exception, certain arguments are simply monodisciplinary blind-spots, focus on exploding apart and not drawing together imperatives, design resources are enabling and countering political philosophy, and establish a focus on actual lines of representation.*

7.1.1.1 Miscommunication is the default rather than the exception

Linguistics – the study of the definitions and etymologies of words - is of paramount importance to design and democracy research. In a South African context, with its eleven official languages, *miscommunication is the default rather than the exception*. In addition, as Section 1.2 demonstrated, seemingly common terms may be undocumented in indigenous languages. The implication is that language is based on power relations, and is politicised. The result is that, prior to considering how designed objects, processes, and philosophy should enable a South African democracy, linguistic research should be carried out in order to ascertain the potential for miscommunication. From a transdisciplinary perspective, and as the first phase of fieldwork in Section 5.3.2 indicated, the onus is on designers rather than politically aligned disciplines. Not only should designers place a greater emphasis on the importance of verbal communication, but also, in a semiotic sense, make use of their ability to employ designed objects and processes to assist, convey, and establish meaning.

7.1.1.2 Certain arguments are simply monodisciplinary blind-spots

The literature review in Chapter 2 unpacked how designed objects, processes, and philosophy enable or hamper democracy. The purpose of the chapter was not to include all examples, but rather, to provide a mechanism with which to locate and position arguments. In addition, through structuring the literature by layers of abstraction, a transdisciplinary strategy was afforded, and as indicated in Section 2.3.2, it revealed how *certain arguments are simply monodisciplinary blind-spots*. Although the chapter is primarily comprised of international literature, it is applicable to a South African context. For example, it can be used to facilitate research, projects, and dialogue, as well as to quicken the process with which disciplines and perspectives cooperate.

7.1.1.3 Focus on exploding apart and not drawing together imperatives

In a South African context, the application of design and democracy's layers of abstraction is the antithesis of its many Occident counterparts. The country's design and democracy should *focus on exploding apart and not drawing together imperatives*. This is aligned with criticisms of humanitarian design, as discussed in Section 2.3.2, when design is too focused on solutions, it may ingrain systemic inequality. This is ultimately an argument that, in order for a South African democracy to be enabled, much of the current perception of democracy needs to be dismantled, be it in physical or perceptual form. As both the first and second phase of fieldwork demonstrated, design is well positioned to facilitate such a process. For example, how as noted in Section 5.3.2, heritage buildings can be normalised to indigeneity using design, or how, as mentioned in Section 6.3, the Experience Design (XD) and Designing For Participation (DFP) methods helped participants deconstruct their entrenched perspectives.

7.1.1.4 Design resources are enabling and countering political philosophy

With design and democracy research, and specifically for the conceptual framework, there is a fine line between IKS/Ubuntu, cultural appropriation, and forms of National Socialism. As discussed in Section 2.3.2, design has a history of assuming, or abusing, community-based intellectual property, and equally of supporting divisive forms of National Socialism. Where the former is arguably a universal concern, contemporary South Africa is well primed for the latter, specifically if xenophobic attacks are understood as a foundation for National Socialism. On the one hand, design should not advocate for a particular form of democracy or national sentiment, but rather explore or challenge reductionist motivations. Yet, on the other hand, a comparison of contemporary South Africa with mid-twentieth century political philosophy is simply out of context. With greater public literacy, and in turn public scepticism, it is questionable if the use of an overarching communication design, to support divisive nationalism, would be possible. Similarly, and as discussed in Section 2.2.3, numerous *design resources are enabling and countering political philosophy*, be this in the form of technology or design methods. In the twenty-first century, the absolute authority of the state, and its ability to speak with a singular and orchestrated message, is therefore questionable. This is naturally a provocative statement, and downplays the impact that inconspicuous and pervasive messages can have on a nation's collective psyche. Yet, it does emphasise the need to allow design to be considered within national South African dialogue, without placing too great an emphasis on its failure in this role in the twentieth century.

7.1.1.5 Establish a focus on actual lines of representation

In a South African context, the design and democracy research helped expose the ambiguity between government, political parties, and publics. Institutionalised attempts to describe these relationships with visual metaphors, for example, the three spheres of government – national, provincial, and local and/or legislative, executive, and judicial – are inadequate to describe the complexity and dynamism that have been observed. In order for design and democracy to be effective in a South African context, a more characteristic model is required. If documented with the emancipative quality of design activism, as discussed in Section 2.2.3, it will *establish a focus on actual lines of representation*, both formal and informal, and from a root cause perspective, identify which issues need to be addressed by designed objects, processes, and philosophy.

7.1.2 HOW THE RESEARCH ANSWERS THE FIRST SUB-QUESTION

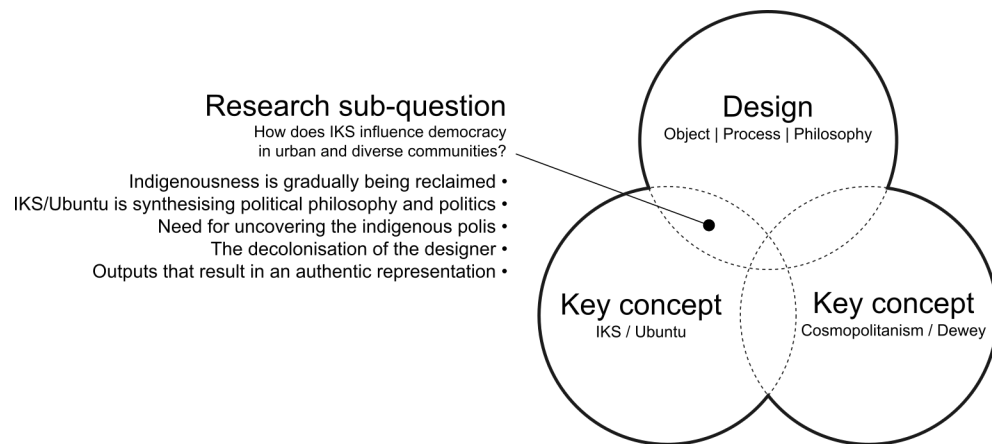


Figure 7.2: Answering the first sub-question

The first sub-question concerns how IKS influences democracy in urban and diverse communities. Figure 7.2 above indicates where the sub-question is positioned in the conceptual framework. The points below conclude how the research answers the first sub-question, under the following key findings: *indigenusness is gradually being reclaimed*, *IKS/Ubuntu is synthesising political philosophy and politics*, *need for uncovering the indigenous polis*, *the decolonisation of the designer*, and *outputs that result in an authentic representation*.

7.1.2.1 Indigenusness is gradually being reclaimed

Of the definitions and etymologies unpacked in the thesis, “indigenous” appears to be the most diachronic. Section 3.1 indicated how the term “indigenous” has shifted from being concerned with nativity, to being a derogatory simplification of people, to being an Apartheid construct, and more recently, to being aligned with an inalienable right. In other words, and in a post-Apartheid context, *indigenusness is gradually being reclaimed* as a form of emancipation. However, due to South Africa’s unique history, and the country’s indigenous communities being in the majority, two scenarios can be extrapolated from the research findings. The first is an extension of South Africa’s history of segregation, where the power dynamics of colonisation and Apartheid evolve to a local-versus-foreign xenophobia. Here, indigenusness is territorially inclined, and, as developed in Section 5.3.1, is expressed as incitements towards xenophobic violence, and operationalised within state bureaucracy, such as protectionist nationalism. The second scenario is cosmopolitan inclined, and as discussed in Section 2.2.3, rather than being concerned with hegemony, indigenusness is a celebration of identity within both local and global platforms. Design has a particular activist role within both scenarios, however, if read from a transdisciplinary perspective, it is suited to the second scenario, and the intricacy of developing a new third space.

7.1.2.2 IKS/Ubuntu is synthesising political philosophy and politics

The literature and fieldwork indicated that IKS/Ubuntu was recognised as a formal body of knowledge. The former, as discussed in Section 3.1.2, noted it as a sub-Saharan concept, and the latter, as discussed in the first phase of fieldwork in Section 5.3.5, revealed the perception that Ubuntu is institutionalised within government and political parties. In other words, rather than being a concept, it was suggested to be a motivation for a particular system of government or political affiliation. In this regard, and if read with Section 1.2, *IKS/Ubuntu is synthesising political philosophy and politics*. It is both a normative what, and a structural how, of government. Yet, due to its preoccupation with anthropocentrism and humanism, it arguably avoids the potential for institutionalising bias. For example, as Section 3.2.2 indicated, under Apartheid, Calvinism formed a union between state and church, and supported a national prejudice. Design is well positioned to assist IKS/Ubuntu to mediate between philosophical and political ontologies. As the second phase of fieldwork demonstrated, designed objects and processes can help document intricate abstractions, and provide evidence to develop theory. In this regard, it can assist South African political philosophy and politics reflect on assumed suppositions, and, rather than compete with each other, help develop their particular levels of abstraction.

7.1.2.3 Need for uncovering the indigenous polis

The relationship between IKS/Ubuntu and urbanisation in a South African context requires a critical awareness of historic factors. During Apartheid, specifically for cities, this occurred in a temporary and cyclical manner. As discussed in Section 3.1.1, this was largely influenced by legislation forcing separated development and migratory labour patterns. In a contemporary South Africa, with its legislated freedom of movement and shifting middle-class demographics, IKS/Ubuntu has an increasingly urban normative legitimacy. However, such rightfulness remains questioned, for example, as discussed in in Section 3.1.2, IKS/Ubuntu is criticised of being a passive abstraction, and in Section 3.1.3, of providing a foundation for the re-emergence of a dictatorial form of nationalism. The first phase of fieldwork echoed these points, and, as indicated in Section 5.3.5, some participants confidently repeated comparable sentiments, or implied them, when discussing IKS/Ubuntu with noticeable discomfort or defensiveness.

As discussed in Section 1.4.2 and Section 3.1.1, criticisms of IKS/Ubuntu are often attempts at deflationism, yet, if read specifically within the context of urbanism and indigenusness being reclaimed, a meta-level issue pertaining to the built environment emerges. Consider that when South Africa was colonised, and during Apartheid, the idea of a city being formed from an indigenous epistemology was nonsensical. Section 3.1.1 discussed this point, and how, for example, indigenous jurisprudence was not fully realised by the colonial administration, but rather enveloped into submission. The first

phase of fieldwork suggested that this trend continues in a post-Apartheid context. For example, Section 5.3.2 suggested that public administrators positioned the city-state as an Occident model of organisation, which can be applied to an African context. The same section also indicated how the built environment provides a canvas for activists with which to express forms of Ubuntu, such as revealing contemporary injustices and power dynamics. This tension introduces the *need for uncovering the indigenous polis*. Although concerns of neoliberalism and the need for affordable housing remain valid, they are arguably of secondary concern to identifying what an authentic South African city is. Design's primary role in this regard is not simply to employ historic disciplines, such as architecture and civil engineering, but to realise authenticity. Rather, design should focus on ideation processes to help identify and articulate obscured or obstructed urbanising indigenous narratives.

7.1.2.4 The decolonisation of the designer

The South African designer has a particular relationship with IKS/Ubuntu when viewed through the post-colonial and decolonial lens, as discussed in Section 3.1.1. For example, a post-colonial interpretation would juxtapose a South African designer's intent with international counterparts. The enquiry would focus on how the designer's objects, use of processes, and philosophy differ or resonate. A decolonial interpretation, on the other hand, would disregard such a comparative enquiry, and arguably focus on the designer in-situ. In other words, how the designer is able to firstly comprehend IKS/Ubuntu, and secondly, delegate its value into object, process, and philosophical abstractions. The focus is not only on the quality of delegation, but also the designer's innate right to delegate. For example, it may be considered unjust or unethical for a foreigner, or, more critically, a white South African, to operate within notions of decolonisation. Their very existence may dilute decolonisation, or, as discussed in Section 2.3.2, contradict it when appropriating ingenious knowledge systems without consent. Admittedly, this is a reductionist interpretation of Fanon, and a binary approach to power relationships - empowerment requires disempowerment. Yet, it is also an argument for *the decolonisation of the designer*, and that, in certain instances, designers should acknowledge their very own contribution, no matter how well intended, could disrupt and hamper a design and democracy project.

7.1.2.5 Output that results in an authentic representation

Decolonisation can also be understood from a design abstraction perspective. Design individuals and communities can be categorised as objects, and similar to the first phase of fieldwork findings in Section 5.3.2, administrated with the same practical lens of ownership, repair, removal, or replacement. If read with Section 2.2.3, and the concerns of hegemonic master plans that colonise indigenous communities, the designers of such projects would simply be removed, and replaced with indigenous representatives. Yet,

positioning the designer, or any individual, as an artefact, is a detached and exclusionary design philosophy. It overlooks the design process, and that a design project and designer are not prescribed from the onset, but rather function under a process of learning. It is such learning that motivates for an *output that results in an authentic representation*. As an interpretation of Fanon, this is similar to the discussion of additive decolonisation, as discussed in Section 5.4, which is not a need to destroy colonisation, but rather a need to focus on developing, creating, and enhancing indigenous influences. From a design and democracy perspective, it directs any designer to operationalise Ubuntu's "a person is a person through other persons", and to seek authentic representation as the ultimate output.

7.1.3 HOW THE RESEARCH ANSWERS THE SECOND SUB-QUESTION

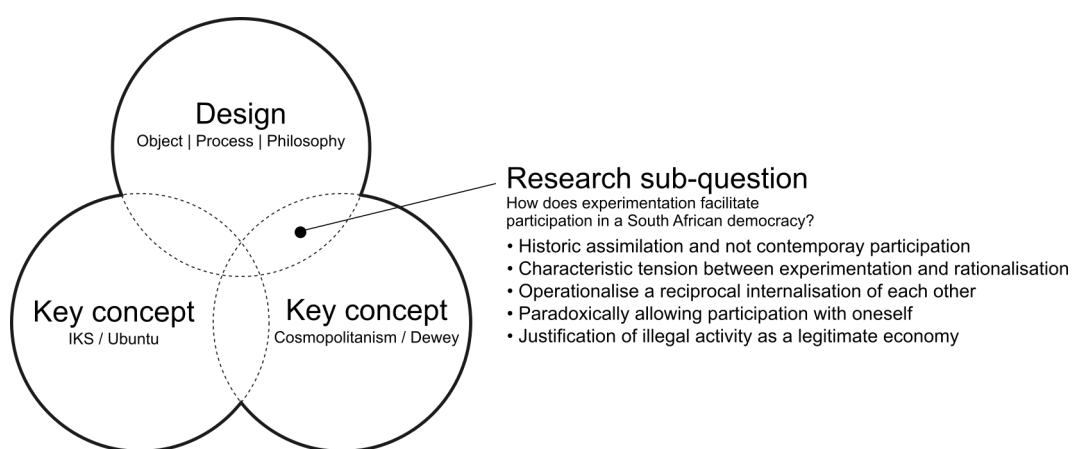


Figure 7.3: Answering the second sub-questions

The second sub-question concerns how experimentation can facilitate participation in a South African democracy. Figure 7.3 above indicates where this sub-question is positioned in the conceptual framework. The points below conclude how the research answers the second sub-question under the following key findings: *historic assimilation and not contemporary participation*, *characteristic tension between experimentation and rationalisation*, *operationalise a reciprocal internalisation of each other*, *paradoxically allowing participation with oneself*, and the *justification of illegal activity as a legitimate economy*.

7.1.3.1 Historic assimilation and not contemporary participation

Participation, as a form of collective agency, has a divided foundation in South Africa. The literature in Section 1.2 indicated how, under colonisation and Apartheid, institutionalised methods of participation were reserved for the white minority. The literature, as discussed in Section 3.1.1, indicated that during such periods, indigenous methods of participation were forced to the periphery. Although, in a democratic dispensation this division is converging, it is arguably positioned under a *historic assimilation and not contemporary*

participation. The focus has been on bringing excluded indigeneity into institutional methods, and not necessarily on bringing institutions into indigenous methods. This is surprising, considering that the majority of the population did not remain stagnant under colonisation and Apartheid, but rather used models of participation to survive under remarkable duress. It is such models, whether recognised as IKS or informal models of normative organisation, that colonisation and the Apartheid regime shielded from the white minority. As such, and similarly to how a certain degree of political literacy is required to engage with democracy, a focus is required on documenting and learning methods of indigenous participation under authoritarianism. In doing so, as the second phase of fieldwork demonstrated, critical models of participation can be identified.

7.1.3.2 Characteristic tension between experimentation and rationalisation

From a transdisciplinary perspective, design and democracy are dissimilar where experimentation is concerned. Where the design process embraces experimentation and change, the democracy process seeks rationalisation and consistency. This has a particular implication for employing an abductive logic of enquiry, and as discussed in Section 1.4.2, managing deflationism. In other words, and if participation is considered, the *characteristic tension between experimentation and rationalisation* may need to be managed by designers, and not by politically related disciplines. This is not simply an issue of competence, but also an issue of how the public understands accountability. For example, as discussed in Section 5.3.6, politicians are required to risk their political capital in order to realise a project. Designers on the other hand, with the exception of architecture and engineering leaning disciplines, are frequently shielded from risk. This is either due to a lack of legislation, or it simply arises from design being associated with change, and therefore, unforeseen risk is expected. If a transdisciplinary public initiative is positioned under the banner of design and not politics, it may have a greater resilience when placed under public scrutiny. In addition, participatory learning that is derived from iterative experimentation will be possible.

7.1.3.3 Operationalise a reciprocal internalisation of each other

The first phase of fieldwork, in Section 5.3.5, suggested that participation, underpinned by IKS/Ubuntu, might be considered too great an abstraction to be of practical value to design and democracy research. The second phase of research experimented with design methods, objects, and processes to ascertain if such concerns are warranted. The results in Section 6.3 revealed that design is able to realise a unique form of participation when underpinned by IKS/Ubuntu. Design and IKS/Ubuntu operated as co-dependants in order to *operationalise a reciprocal internalisation of each other*, in a South African context. In other words, this dynamic, reflective form of participation was only possible when IKS/Ubuntu provided the operational principles, and design translated them into acts of

participation. It is a significant relationship that challenges perceptions of design being considered an industrial complex, or standing in opposition to traditional authorities.

7.1.3.4 Paradoxically allowing participation with oneself

Participation is political, and requesting introspection is a political act in itself. From a design and democracy perspective, it introduces a risk of individuals and communities being subjected to a fault-finding exercise. In addition, self-examination requires the disclosing actor to place trust in a project or community stakeholder. In contested and volatile environments, of which South Africa has many, this may simply prevent participation from occurring in the first place. Experimental participation managed these concerns with the public actors, by *paradoxically allowing participation with oneself*. The results of the Ai instrument, as discussed in Section 6.3.7, demonstrated this point. For the results of the CCTV camera (Surveillance) component of the experiment, had the researcher instigated the photograph, the participant would have been justified in expressing concerns relating to privacy. However, due to the participant having requested surveillance in the case study delineation, the resultant photograph is an extension of their agency, and participation with notions of public. This form of participation is not immediate, but rather residual, and may only become evident to the participant when issues pertaining to surveillance and privacy occur in the future.

7.1.3.5 Justification of illegal activity as a legitimate economy

The role of struggle, and its relationship to participation, was mentioned both in the literature review, and in the first phase of fieldwork. Section 2.2.3 indicated that agonism is fairly well-established in design and democracy discourse, and Section 5.3.1 revealed how South African public administration employed an institutionalised form of activism and legal relativism to benefit public communities. The implication of these sections is, within certain conditions and geographic locations, a *justification of illegal activity as a legitimate economy* in its own right. Positivistic notions of what is considered illegal, corrupt, and unethical, should be reconsidered and temporarily suspended. In doing so, participation becomes less concerned with the management of publics, and how, for example, agency is balanced and redistributed. Rather, it affords a social constructivist imperative, and a focus on what a public should be in the first place, and how design can delegate this ideal.

7.2 CONTRIBUTION TO KNOWLEDGE

This section discusses the research's contribution to knowledge, and comprises three sections: reflections on the research, review of the field, and the key contribution - critical representation.

7.2.1 REFLECTIONS ON THE RESEARCH

The emergence of design and democracy research, and the use of an abductive logic of enquiry to underpin the second phase of research, resulted in expected and unforeseen research gaps and deviations.

7.2.1.1 Occident and industrialised countries as comparatives

Although the literature review focused on South Africa - the context under review - it primarily used *Occident and industrialised countries as comparatives*. This was partly due to the design and democracy literature being aligned with these countries, and due to South Africa having a historic relationship with them under colonisation and Apartheid. Brazil, Russia, India, China, and South Africa (BRICS) are referenced, but in far fewer instances, and are primarily from a trade relationship perspective. This is a known gap in the thesis, which can only be addressed as further design and democracy patterns emerge, or as they are academically documented.

7.2.1.2 Based on the author's worldview

The choices of design methods in the fieldwork were interpretive, and *based on the author's worldview*. Although this is an imperative of any academic thesis, for a study that experiments with notions of democracy, the choice of methods must be seen as one of the many choices that had the potential to influence outcomes. Similarly, the resultant abductive instrument, which was designed by the author, may have offered different results if conceived by another individual or collective. These points are both gaps and opportunities that are intrinsic to design and democracy research.

7.2.1.3 Influenced by the environment

The experiment in the second phase of research, aimed to understand a change in political attitude, following use of the Ai. Although the resultant patterns are ascribed to the Ai, it is also important to consider that they might have also been *influenced by the environment*. In other words, as the participant became more accustomed to the fieldworker (Extinction time), the response may have changed. Future research that documents multiple case studies and environments could help clarify this point.

7.2.1.4 How personal agency is reconsidered

A gap in the second phase of research is concerned with the abductive instrument. In a similar manner to the resubmitted political statements, it would have been of empirical value for the participants to recalibrate and resubmit the security and surveillance instruments at the end of the experiment. In doing so, further evidence would have been

gathered on design efficacy to change not just political viewpoints, but also *how personal agency is reconsidered* after having been exerted onto a public.

7.2.1.5 Inform the respondents that they had enacted Ubuntu

For the second phase of fieldwork, an opportunity was lost to *inform the respondents that they had enacted Ubuntu*. When concluding their participation, it was an opportune moment to reveal the link between IKS, South African democracy, and potential forms of urbanisation. This disclosure would not have influenced the results, and would have helped establish IKS' role in urban South African environments.

7.2.2 REVIEW OF THE FIELD

The thesis has been written over a period of six years, from 2011 to 2017, and due to the subject being grounded in both real-life phenomena and the development of theory, the field is constantly changing. This sub-section reflects back on the six years, and reviews the field of design and democracy research.

7.2.2.1 Design and democracy expertise remains low

From a transdisciplinary perspective, *design and democracy expertise remains low*. This is not to suggest that expertise is not on the rise, but rather, and if read with Section 1.4.1, that modes of disciplinary collaboration appear to be interdisciplinary in approach, and based on hierarchy. It is possible that this trend will continue until design and democracy is formally recognised as a subject and made available as a post-graduate programme, in a similar manner to the design activism curriculum discussed in Section 2.2.3.

7.2.2.2 Design and democracy initiatives are sporadic

It appears that *design and democracy initiatives are sporadic*, which can be demonstrated with two projects. The first is “Designing Democracy”, and the second, the “Democracy and Design Platform”. The former, is focuses and centred around 2014 marking two decades of South African democracy, and explores the “notion of design-led thinking through innovation, creativity and problem solving and how this approach can better serve South Africa’s democracy” (Designing South Africa, 2016). The latter, established in 2017, explores the “relationship between democracy and design”, noting that “we are in difficult and dangerous times”, and that there are “attacks on democracy in several countries” (Democracy and Design Platform, 2017). The projects are distinct; where the former is preoccupied with South Africa, the latter aims to operate internationally. In addition, where the former looks to explore and understand the relationship between design and democracy, the latter is arguably more of a call to mobilise a particular form of liberalism, than an appreciation of the scope of democracy. Yet, as discussed in Section 1.2, both

projects appear to be indicative of democracy's wave effect, and in turn, motivated by a decrease in democracy. It is unclear if, like what appears to have occurred with the Designing Democracy project, if the Democracy and Design Platform will exist beyond immediate concerns of democracy. In other words, scope exists for a design and democracy project that can operate across both a decrease, and an increase in notions of democracy. In doing so, longitudinal data will provide comparative insight on project imperatives and the use of design.

7.2.2.3 Design, within the urgency of a democracy under duress

From a South African perspective, the greatest challenge is the *positioning and enactment of design, within the urgency of a democracy under duress*. In other words, and as the thesis has demonstrated, design requires critical investments. Practically, they include, for example, capital expenditure and time, and theoretically, a belief in experimentation, and trust in novel methodology. For gatekeepers of such criteria, design can be considered a secondary concern to urgently addressing a failing state mechanism. This places responsibility on the designer to implement design and democracy projects without, or perhaps even against, state or organisational support.

7.2.3 CRITICAL REPRESENTATION

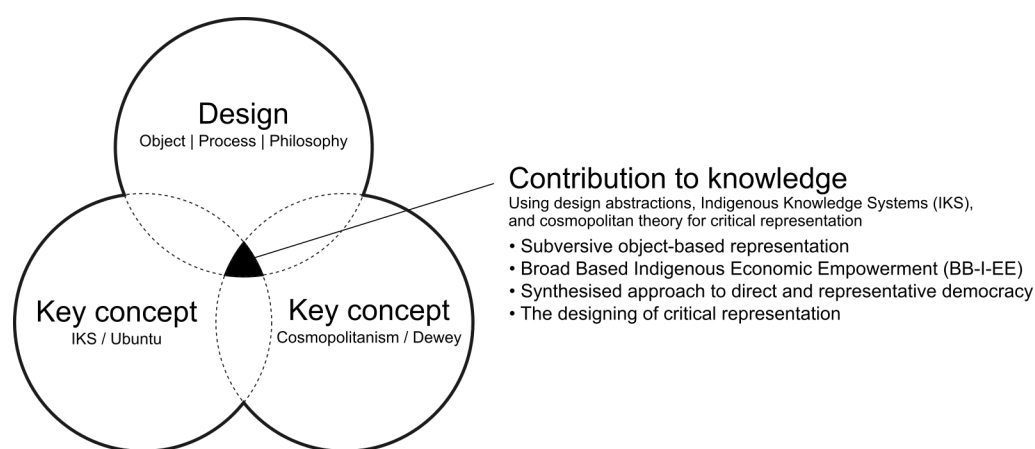


Figure 7.4: Contribution to knowledge

The thesis indicated, as discussed in Section 1.1, that the contribution to knowledge is threefold. Practically, it looked to develop the use of design in social change abstractions. Empirically, it aimed to contribute to the design and democracy literature from a South African perspective. Theoretically, it sought to establish design and democracy as a transdisciplinary enquiry. While such criteria provide intent, Figure 7.4 above indicates where this contribution occurred in the conceptual framework, which is categorised under the term “critical representation”. The points below conclude how the research contributed to this intersection of design abstraction, IKS, and cosmopolitan theory, under the following key findings: *subversive object-based representation*, *Broad-Based Indigenous*

Economic Empowerment (BB-I-EE), synthesised approach to direct and representative democracy, and the designing of critical representation.

7.2.3.1 Subversive object-based representation

In a semiotic sense, physical objects continue to represent individuals. This includes the built environment, which may encapsulate or direct an individual or community, and small-scale objects, which are operated or assembled by individuals and communities. Representation applies to the public actor and the designer of such objects, both during use, and posthumously. This *subversive object-based representation* can be a requested affordance or a directed limitation. As the second phase of fieldwork highlighted, to ignore the agency of the artefact, is to deny the complexity that actors are required to navigate on a daily basis.

7.2.3.2 Broad-Based Indigenous Economic Empowerment (BB-I-EE)

South Africa has historically, and continually, enforced representation by colour. This is at the most intimate level - being represented by colour. Although Apartheid may have originated the system of colour categorisation, the current government extends such an approach. For example, using terminology such as Broad-Based Black Economic Empowerment (B-BBEE). Although the intentions behind such programs are needed to redistribute opportunity, and the wealth that was denied under segregation, it extends a reductionist ideology of enforcing representation by colour. The research has suggested that an alternative approach could be *Broad-Based Indigenous Economic Empowerment (BB-I-EE)*, which would introduce a more in-depth, bottom-up, and progressive model of emancipation. In a cosmopolitan sense, and similarly to the TRC as discussed in Section 3.1.3, it would provide a model, which other countries with disenfranchised indigenous communities, can adopt or amend further.

7.2.3.3 Synthesised approach to direct and representative democracy

The two primary approaches to democracy, direct and representative, are arguably approaching a synthesised form. Design processes, as discussed in Section 2.2.2, are increasingly affording people the power to direct democracy, and dilute oversimplified demarcations of representative democracy. This has a notable application to South Africa, which, as Section 1.2 indicated, is operating on intra-party, and not multi-party principles. Currently, party representation is superseding public representation, and the power of the people is lost to both legislated and invisible collusion – nepotism. As the first phase of fieldwork in Section 5.3.2 indicated, South Africa is using designed objects and processes to activate public agency, where the built environment supported social media campaigns to remove the president. Yet, this remains within an intra-party dynamic, and although enacted by the public, it does not necessarily enable public power. The use of designed

objects and processes in the second phase of fieldwork, are more indicative of how a *synthesised approach to direct and representative democracy* could function. For example, through the use of dynamic and reflective experimentation, new models of public agency could be tested, and if found successful, could drive government policy, and supersede the ideological stagnation of intra-party politics.

7.2.3.4 The designing of critical representation

The conceptual framework, at the intersection of design, IKS, and cosmopolitanism, contributes to knowledge by assisting the designer when involved with notions of South African democracy. Although it advocates for the use of designed objects, processes, and philosophy to enable democracy, the emphasis must remain on contextual authenticity and experimental participation. In doing so, the conceptual framework operationalises *the designing of critical representation*, in a manner that is not based on a designer's demographics, such as ethnicity or nationality, but rather on design intent. This prevents design from oversimplifying people, fortifying grand narratives, and/or positioning the designer as the principal subject. Rather, it emphasises a hyper-transparent design process, a need to disclose and learn from failure, and ultimately, for the designer to adopt a vulnerability equitable to other project stakeholders.

7.3 RECOMMENDATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This section discusses recommendations and directions for future design and democracy research. It comprises four sections: design recommendation, policy recommendations, transdisciplinary recommendations, and future research output.

7.3.1 DESIGN RECOMMENDATIONS

The thesis has demonstrated that design is able to influence notions of democracy. Whilst the focus has been on documenting and measuring this claim, two recommendations to the broader design discipline are made in this sub-section. The first recommendation concerns designer's acknowledging their role and responsibility within a democracy, and the second recommendation, is that designers prepare for legislation that will supersede advocacy for this responsibility within a democracy. In some respect, this is similar to ecological awareness, and how calls for designers to be aware of their role in environmental degradation are increasingly being replaced with directives that inform the design process and composition of artefact¹¹⁷. Although similar developments may take

¹¹⁷ See, for example, the Waste of Electrical and Electronic Equipment (WEEE) directive, which aims to "contribute to sustainable production and consumption" (*On waste electrical and electronic equipment (WEEE)*). European Union. European Parliament and of the Council, 2012.). In addition, the Restriction of Hazardous Substances (RoHS) directive, which aims to "contribute to the protection of human health

decades to gain an equitable traction and influence, the ethical imperative of the design and democracy conceptual framework should not be discounted.

7.3.2 POLICY RECOMMENDATIONS

The literature review indicated that Ubuntu was included in the 1993 South African interim constitution. However, from a policy perspective, it is of importance to note that it was excluded from the subsequent 1996 constitution. Attempts to clarify why this omission occurred by literature reviews, approaching legal academics, and contacting the Constitutional Court library, proved unsuccessful. It is possible that Ubuntu's relativist imperative prevented it from being included in legislation. However, the term "dignity", which is equally relativist, remains in the constitution. In addition, the 1997 Batho Pele principles, as discussed in Section 3.1.3, are interpretations of Ubuntu, which function as policy. It is possible that the omission of Ubuntu from the Constitution was a form of recolonisation. For example, indigenous jurisprudence was considered appropriate to facilitate a transition to democracy, yet incapable of contributing to the resultant South African democracy.

From a key concept perspective, and if IKS is indicative of an authentic context, an opportunity exists to reintroduce indigenous jurisprudence into law. If South Africans are legitimate in their concerns of democracy being under duress, Ubuntu should be re-included in the constitution. Of importance to a sense of ownership and application, this should not be a bureaucratic allowance, but rather a public interpretation of Ubuntu, a public propositioning of the Constitutional Court, and ultimately, a public mechanism to ascertain if Ubuntu policy is being transgressed. In doing so, concerns of the public being a state asset, and concerns of Ubuntu being a form of autocratic National Socialism, will be addressed. The enormity of this recommendation is implicit, and the role of designed objects, processes, and philosophy will be required to help articulate Ubuntu, and translate it into effective policy.

7.3.3 TRANSDISCIPLINARY RECOMMENDATIONS

The transdisciplinary research strategy, outlined in Section 1.4.1, was selected to deepen academic enquiry. Although the results of the design and democracy research indicate that it has been effective, realising such an approach required perseverance. In order to assist researchers who intend to employ a transdisciplinary research strategy, the following recommendations are provided.

and the environmentally sound recovery and disposal of waste electrical and electronic equipment" (*On the restriction of the use of certain hazardous substances in electrical and electronic equipment*. European Union. European Parliament and of the Council, 2011.).

7.3.3.1 Terms of engagement guidelines

Transdisciplinary research holds a certain appeal - it offers insight into extraneous perspectives and epistemologies that may enrich one's own. However, transdisciplinary research is both a competency and an attitude, and certain disciplines have a natural tendency against engaging with other perspectives. On reflection, *terms of engagement guidelines* should have been provided to these academics prior to contributing to the design and democracy research. This may have avoided determined monodisciplinary assertions, and accelerated the point to which new knowledge was produced.

7.3.3.2 Research design and methodology as point of convergence

The demands placed on transdisciplinary collaborations vary throughout the research process. On the one hand, the potential for epistemological ambivalence and ontological dissonance requires on-going management to prevent researchers from diverging when articulating a research problem, and carrying out a literature review. On the other hand, transdisciplinarity's approach to developing new theory may provide a natural convergence for researchers when defining the research design and methodology. This is not to suggest that such a definition is without complication, but rather, that disciplines bring new instruments and competencies which can help broker philosophical divides. In other words, it is through the process of planning, designing, and implementing primary research that transdisciplinary collaboration becomes less conflicted.

7.3.3.3 Supportive boundary devices

The timing of the design and democracy research, in a South Africa context, was intentionally scheduled to coincide with the country's national elections, and the WDC2014. In doing so, the activities and debate surrounding these events, functioned as *supportive boundary devices* with which to stimulate research contribution. Where possible, transdisciplinary research should employ appropriate timing as a method with which to embed the phenomena under review.

7.3.4 FUTURE RESEARCH OUTPUTS

Within the conceptual framework, introduced in Section 1.3, the scope of design and democracy research provides numerous research opportunities. The following outlines what future research outputs are planned to extend the findings of this thesis.

7.3.4.1 Conference and seminars

The design and democracy research has been presented at symposiums since 2011. This included formal presentations at the Cape Peninsula University of Technology (Qually, 2013b), Stellenbosch University (Qually, 2015), and the City of Cape Town (Qually, 2014).

A follow-up symposium is planned in order to present the fieldwork findings, in particular, those of the second phase of fieldwork; this phase had not been carried out at the time of the presentations.

7.3.4.2 Remaining three key observations

The key observation, responsive publicisation, as outlined in Section 5.4, was motivated for further research in the second phase of fieldwork. It was this option that was argued to be of the greatest value to the design and democracy research, and to specifically to address the research questions. However, the *remaining three key observations* - additive decolonisation, legal relativism, and adopting uncertainty - all require further research. Each key observation will be developed in separate journal articles and, where applicable, developed with research methods and instrumentation suited to addressing the design and democracy research problem. Due to each key observation adopting a unique line of enquiry, each will be submitted to a disciplinary journal with which design is attempting to coordinate. This will not only introduce design studies in areas beyond representative academia, but will also encourage unforeseen critical feedback, which can enrich design and democracy research.

7.3.4.3 Abductive instrument (Ai) theoretical building blocks

The Abductive instrument (Ai), as detailed in Section 4.3.4, was key to obtaining primary data and contributing to knowledge. Although it was underpinned by specific methods, and required to have a particular setup for the design and democracy research, the use of abductive instrumentation more broadly, requires further research. In particular, the use of design objects and processes to generate new knowledge, with the specific goal of developing theory. A journal article is planned to explore what generalised *Abductive instrument (Ai) theoretical building blocks* can operationalise various types of transdisciplinary research. Due to this topic having applications beyond design and democracy research, it will be submitted to a design centric journal in order to contribute to the growing body of design theory literature.

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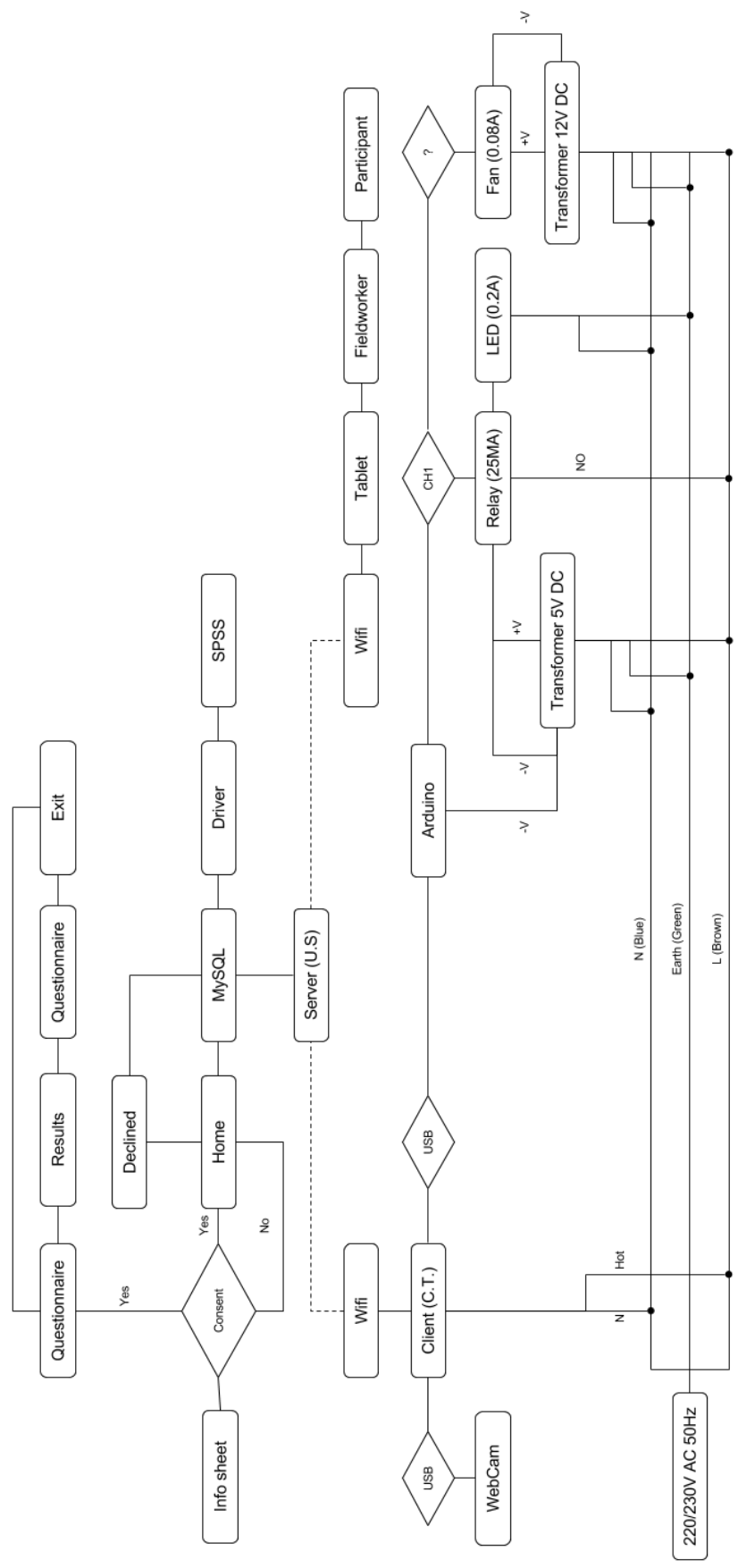
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APPENDIX A ABDUCTIVE INSTRUMENT SYSTEM OVERVIEW



Appendix 1: Abductive instrument system overview

APPENDIX B ABDUCTIVE INSTRUMENT CODE EXAMPLE

```
import processing.serial.*;
import processing.video.*;
import cc.arduino.*;
Arduino arduino;
FTPClient ftp;
Capture cam;
int num = 0;
int RelayPin = 8;
PrintWriter output;
void setup() {
    size(704, 440);
    tint(100, 150, 100);
    PFont font;
    font = loadFont("LEDLCD123-25.vlw");
    textFont(font, 25);
    arduino = new Arduino(this, "/dev/cu.usbmodem1471", 57600);
    arduino.pinMode(RelayPin, Arduino.OUTPUT);
    cam = new Capture(this, "name=Microsoft® LifeCam HD-3000,size=704x440,fps=30");
    cam.start();
}
void draw() {
    switch(num) {
        case 0:
            println("Initiating case 0 sequence");
            println("- Checking camera availability");
            if (cam.available() == true) {
                cam.read();
            }
            image(cam, 0, 0); // Used to position camera subject
            num++;
            break;
        case 1:
            println("Initiating case 1 sequence");
            String InstrumentLEDCheck[] =
            loadStrings("http://designdemocracy.org/Exchange/InstrumentLED.txt?"+(int)random(Integer.MAX_VALUE));
            String InstrumentCCVTChek[] =
            loadStrings("http://designdemocracy.org/Exchange/InstrumentCCTV.txt?"+(int)random(Integer.MAX_VALUE));
            String ParticipantCCTVCheck[] =
            loadStrings("http://designdemocracy.org/Exchange/ParticipantCCTV.txt?"+(int)random(Integer.MAX_VALUE));
            if ((InstrumentLEDCheck.length < 1) || (InstrumentCCVTChek.length < 1) || (ParticipantCCTVCheck.length < 1)) {
                println("- Text file data is missing, restarting loop");
                num = 0;
            } else if ((InstrumentLEDCheck.length >= 1) || (InstrumentCCVTChek.length >= 1) ||
            (ParticipantCCTVCheck.length >= 1)) {
                print("- LED set to: ");
                println(InstrumentLEDCheck[0]);
                print("- CCTV set to: ");
                println(InstrumentCCVTChek[0]);
                println("- Text file data ok, continuing");
                num++;
            }
            break;
        case 2:
            println("Initiating case 2 sequence");
            String InstrumentLEDStatus[] =
            loadStrings("http://designdemocracy.org/Exchange/InstrumentLED.txt?"+(int)random(Integer.MAX_VALUE));
            if (InstrumentLEDStatus[0].contains("0")) {
                println("- Switching LED off, continuing");
                arduino.digitalWrite(RelayPin, Arduino.LOW);
                num++;
            } else if (InstrumentLEDStatus[0].contains("1")) {
                println("- Switching LED on, continuing");
                arduino.digitalWrite(RelayPin, Arduino.HIGH);
                num++;
            }
            break;
        case 3:
            println("Initiating case 3 sequence");
            String InstrumentCCVTStatus[] =
            loadStrings("http://designdemocracy.org/Exchange/InstrumentCCTV.txt?"+(int)random(Integer.MAX_VALUE));
            if (InstrumentCCVTStatus[0].contains("0")) {
                println("- CCTV sequence not required, restarting loop");
                num = 0;
            }
    }
}
```

```

        } else if (InstrumentCCVTStatus[0].contains("1")) {
            println("- CCTV sequence required, continuing");
            num++;
        }

break;
case 4:
println("Initiating case 4 sequence");
String ParticipantCCTVStatus[] =
loadStrings("http://designdemocracy.org/Exchange/ParticipantCCTV.txt?"+(int)random(Integer.MAX_VALUE));
background(255);
pushMatrix();
translate(704, 440);
rotate(radians(180));
image(cam, 0, 0);
popMatrix();
text(ParticipantCCTVStatus[0], 10, 30);
text(ParticipantCCTVStatus[1], 10, 340);
text(ParticipantCCTVStatus[2], 10, 370);
text(ParticipantCCTVStatus[3], 10, 400);
text(ParticipantCCTVStatus[4], 10, 430);
text("CAMERA #1.1a", 520, 430);
println ("- Saving picture");
save("Exchange/InstrumentCCTV.jpg");
println ("- Saving text file");
output = createWriter("Exchange/InstrumentCCTV.txt");
output.print("0");
output.flush();
output.close();
num++;
break;
case 5:
println("Initiating case 5 sequence");
try {
    println ("- Opening FTP");
    ftp = new FTPClient();
    ftp.setRemoteHost("184.168.137.1");
    FTPMessageCollector listener = new FTPMessageCollector();
    ftp.setMessageListener(listener);
    println ("- Connecting to server");
    ftp.connect();
    println ("- Loggin in to server");
    ftp.login("iotinstrument", "Password");
    ftp.setConnectMode(FTPConnectMode.PASV);
    ftp.setType(FTPTransferType.BINARY);
    println ("- Uploading new files");
    ftp.put("/Users/phd/Documents/Processing/PhD/Exchange/InstrumentCCTV.jpg", "InstrumentCCTV.jpg",
false);
    ftp.put("/Users/phd/Documents/Processing/PhD/Exchange/InstrumentCCTV.txt", "InstrumentCCTV.txt",
false);
    println ("- Quitting FTP");
    ftp.quit();
}
catch (Exception e) {
    println ("- FTP upload failed");
}
println ("- Allowing pause");
delay(30000);
num = 0;
break;
}
}

```

APPENDIX C FIELDWORK CONSENT FORM EXAMPLES

I, (Name and surname), wish to take part in the Design + Democracy project.

I have read the information sheet, which provides a clear overview of the project, and my role as a participant. I have contacted the researcher, Byron Qually, to explain any information that is unclear in this information sheet, and I understand the possible effects of participating in this research have been explained to my satisfaction.

I understand that the project and my contribution is for educational and research purposes, including publication, and I assign the copyright for this contribution to the Open University (OU), Department Design and Innovation, Faculty of Maths, Computing and Technology.

I have been informed that I am free to withdraw from the project at any time without explanation or prejudice, and to withdraw any unprocessed data I have provided. I understand that if I have any concerns or difficulties, I can contact the research project's primary supervisor, Dr Emma Dewberry, on Emma.Dewberry@open.ac.uk and +44(0) 1908 332 940.

My consent to be interviewed for this research project is formally recorded as YES / NO

Appendix 2: Fieldwork phase 1 consent form (Individual)

I have been provided an opportunity to read the information sheet that provides a clear overview of the project and my role as a participant, and I am aware I can contact the principal researcher to explain any information that is unclear. I understand the possible effects of participating in this research have been explained to my satisfaction.

I understand that the project and my contribution is for educational and research purposes, including publication, and I assign the copyright for this contribution to the Open University's (OU) Department of Engineering and Innovation, Faculty of Mathematics, Computing and Technology.

I have been informed that I am free to withdraw from the project at any time without explanation or prejudice, and to withdraw any unprocessed data I have provided within one week of contributing to the research. I understand that any concerns or difficulties can be escalated to the research supervisor and University.

By selecting the accept button below:

(a) I agree to be surveyed for this research project.

(b) I confirm that I am 18 years of age or older.

ACCEPT / DECLINE

Appendix 3: Fieldwork phase 2 consent form (All)

APPENDIX D ATLAST.TI OPEN-CODING EXAMPLES

in a country like South Africa where you have people who've migrated radically across the Landscape from South Africa for opportunities. So there is a sense of displacement and it's difficult. How does a Congolese car-guard really feel connected to Long Street if one breaks it down to that if [...] assuming his place in the world is miles away, that one needs to create those connections which are as relevant to somebody who's only been here for a year as a user of the space who's a resident of Cape Town that's lived here forever coz I think the moment those

In think, just also in terms of [...] before we end, um [...] one thing that I feel is, I think getting back to the history and memory element of things. If I take my own experience of having a sense of place in the world, it's very much that notion of place making, but it revolves around your, your personal deep connection to a place. Be it a family house that you go back to for Christmas, you know. That special place that as a kid you went with your dad; the bank of the river you fished on or whatever it is, those intimate things. Now all of those intimacies are so deeply connected around stories and storey telling, so you instil [...] I don't know if you've got kids [...] but you instil that sense of place in your kids by talking about those stories. They then understand where their dad comes from and those moments that have made him what he is, and I think storey-telling is so fundamentally important, particularly in a country like South Africa where you have people who've migrated radically across the Landscape from South Africa for opportunities. So there is a sense of displacement and it's difficult. How does a Congolese car-guard really feel connected to Long Street if one breaks it down to that if [...] assuming his place in the world is miles away, that one needs to create those connections which are as relevant to somebody who's only been here for a year as a user of the space who's a resident of Cape Town that's lived here forever coz I think the moment those connections happen through a narrative, that knowledge of all of the users, then you start creating a place that has um, resonates with people on an emotional level.

How does a...
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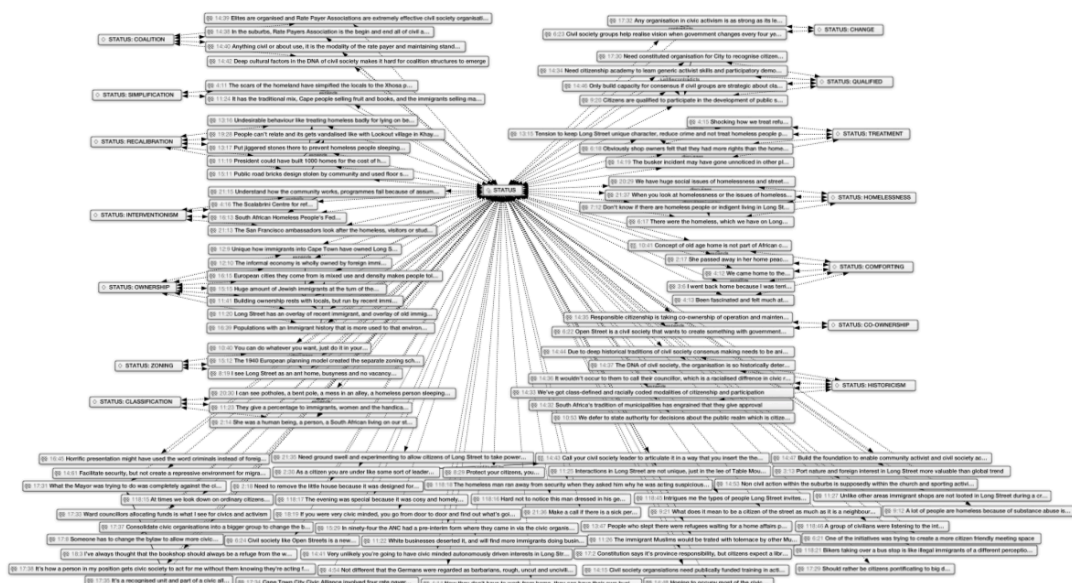
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Long Street parking map...
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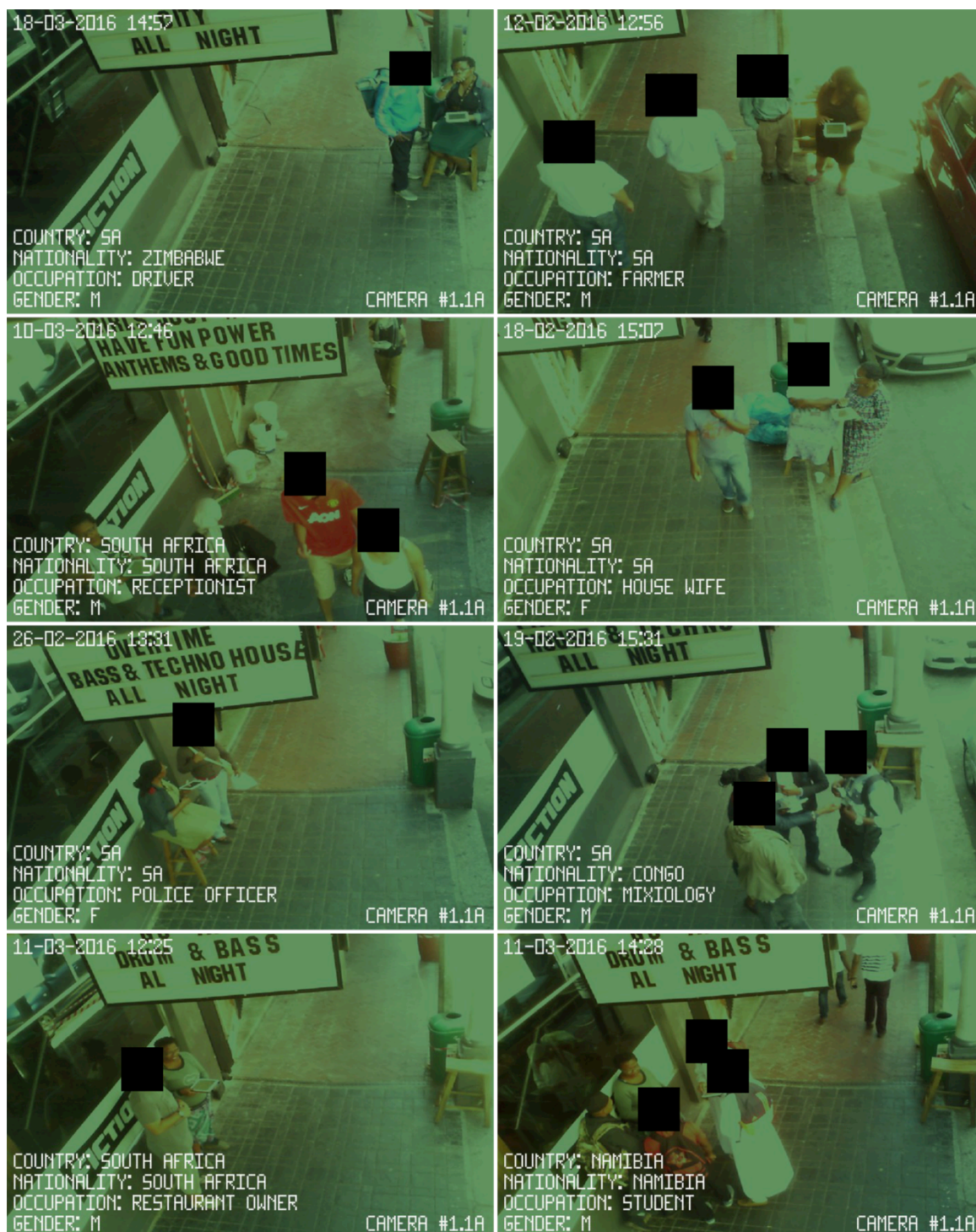


APPENDIX E PHOTOGRAPHY MEMO EXTRACT EXAMPLE

	DATE	TIME	LOCATION	KEYWORDS	MOTIVATION	BEHIND THE SCENE	IMAGE SOURCE	AUTHOR
PhD FRP096	14/08/04	12h10	Leeuwen Street	Petition Bonteheuwel Justice	Community leaders and residents of Bonteheuwel, as well as DA representatives who all live in the area were there to officially hand in a document petitioning the Western Cape government to do something about the crime and gangs in the area - a call to help improve their general living conditions. This was the official hand over.	There were DA members singing and dancing in the background - songs about Zuma. As well as protesters against e-tolls in the Western Cape.	Byron014_RS.jpg	taniaphel
PhD FRP095	14/08/04	12h00	Leeuwen Street	Media High Court Petition	This photograph was taken more the framing and composition in the sense that I wanted the viewer to get a holistic interpretation of the what was going - the media and the deliberate acknowledgement of the a court representative that he was receiving a petition from community members in Bonteheuwel. Almost like one of those cutting of the ribbon ceremonies for PR.	There were various media representatives around. Groups protesting about the e-tolls. DA members dancing in front of the court.	Byron013_RS.jpg	taniaphel
PhD FRP094	14/08/04	11h50	Leeuwen Street	Right2Know Campaign Solidarity e-toll	There were various groups of people standing outside the High Court this morning. The Right2Know campaign were there against the recent attempt of SANRAL to extend e-tolling system into the Western Cape. However, SANRAL are against the public, knowing what is going on and what their intentions for the Western Cape are. Therefore they felt it necessary to also let their presence known.	There were other groups representing other issues they came to approach the Western Cape government about. A huge group of Bonteheuwel and DA representatives. And various medias documenting the activities.	Byron016_RS.jpg	taniaphel
PhD FRP093	14/08/04	11h15	Leeuwen Street	Bikers Protest e-toll	The issue of e-tolls has been an issue that has been affecting people in Gauteng for a long time now - however they are trying to extend it to the Western Cape now - "These new toll-roads are in addition to the N1-N2 Winelands toll road in the Western Cape, the N2 Wild Coast toll road in the Eastern Cape and e-tolls in Gauteng." (source news24). I was intrigued by the diversity of the project, that it was not purely a DA rally against the ANC but an issue that affects everyone.	There were various other groups of people protesting against the e-toll and other issues like community safety in front of the WC High Court.	Byron012_RS.jpg	taniaphel
PhD FRP092	14/08/02	02h50	Long Street	Driver Chase Identity	This woman while driving up the road decided to stop in the middle and just reversed in the road causing the person behind her to knock her. However proceeded to blame the other driver. Anyway I got involved and she started getting her angry at me so to get her to step away from me, I started taking photos of her which seemed to to work. I am showing this photo for the purpose of your study, because at the end of the day I do want to respect her privacy.	People were standing around witnessing the altercation, cars hooting and people getting irritated because of the traffic jam.	Byron011_RS.jpg	taniaphel
PhD FRP091	14/08/02	02h40	Long Street	Chaos Traffic Party	There was an altercation between two drivers and this was the facial expression of this one individual while watching things go down. Her face says it all!	There were two drivers who got out of their cars to have argument right in the middle of one of the busiest times on Long Street - especially that it was month end. There was a lot of hooting, party goers and commotion - chaos.	Byron010_RS.jpg	taniaphel
PhD FRP090	14/08/02	17h20	Long Street	Tourism Market Clothing	I had decided to walk into the African Women's Craft Market, helping a friend look for African printed fabrics to make for her mother-in-law in Norway. This is a very popular market and full of Africans curios and fabrics.	There were various other vendors selling their fabrics, sculptures etc. Each attending to their craft.	Byron009_RS.jpg	taniaphel
PhD FRP089	14/07/25	10h00	Long Street	City Pigeons Feed	The image of the shop owner throwing a whole bunch of bread crumbs and a flock of birds congregating to eat. The one slight disturbance and they all scatter - it is a very common thing we see living in the city. Always something you cant help but stop and look.	The road was quiet, a few cars here and there. It was too early in the day and late in the morning for any activity as people were at work.	Byron_LongStreet003_RS.jpg	taniaphel
PhD FRP088	14/07/31	15h45	Long Street	Human sign Cash for Gold Labour	One of the jobs that intrigue me the most in the city is the people standing around as human signs giving out flyers. How does the agreement of hours spent handing out flyers work - how do they get paid? What value does the job have other than to survive. I wonder how any sense of dignity or pride is given to that one individual... all these assumptions, however concerns none the less.	The street had livened up slightly compared to a few hours earlier in the day. Mainly because they have just opened a new business - "City Seeing Bus Offices" close by, so there were a number of people waiting to get onto the bus.	Byron_LongStreet003-2_RS.jpg	taniaphel
PhD FRP087	14/08/31	12h50	Long Street	Pets Moral Guilt	It has always been an issue but lately more than usual there are men walking around town selling puppies to people. The puppies always look malnourished and the beggars on the street sell them for next to nothing. They pull at peoples heart-strings to make them buy these puppies out of guilt. My issue is that besides the method of selling is wrong, people are always better equipped to take care of these pets.	People were going about their day and the weather was not very inviting so the street was very quiet.	Byron_LongStreet002_RS.jpg	taniaphel
PhD FRP086	14/08/31	12h45	Long Street	Faces Street Photography Car Guards	It was a pretty quiet time in the day, not much happening because people were still working. This car guard was just leaning on the power box waiting for something to happen; both car guards and taxi drivers have been expressing how quiet business has been due to the weather over the last few days.	Not much was happening, despite it being close to lunch time. The road was relatively quiet.	Byron_LongStreet001_RS.jpg	taniaphel
PhD FRP085	14/05/06	13h05	Long Street	School children Playful Innocence	I was walking up the road, about to out my camera away and saw these two playing and jumping around waiting for the MyCiti bus after school. At first I didnt want to take a photo because of ethics being photographing children. However, started talking to them; it is amazing how young, innocent and highly intelligent kids can be. One of them offered their bus card to me.	There were tourists walking in and out of the backpackers where the MyCiti stops on the top of Long Street. The lunch time rush just started as well.	Byron_Longstreet007b.jpg	taniaphel
PhD FRP084	14/05/06	12h37	Long Street	Passers-by 1994 ballot paper Patriarchy	You see partly posters everywhere around town however this one grabbed my attention the most. It is the 1994 ballot paper as a friendly reminder to how we have come and how important elections are. To remember our history and those involved.	There was the usual construction happening around town. The street was quiet.	Byron_Longstreet005.jpg	taniaphel
PhD FRP083	14/05/06	12h35	Long Street	Car Guard Voting Break	I just thought in terms of framing; the old voting ballot paper as a poster and the back of the car guards bib taking a break says more than I can try explain.	There was general construction happening and the Muslim men entering the mosque in drips and drabs.	Byron_Longstreet004.jpg	taniaphel
PhD FRP082	14/05/06	12h30	Long Street	Construction Progress Follow-up	This particular building has been in the process of being renovated for so many years now. It is interesting to see the progress (never thought the day would come) that has happened. It is all finally coming together and it is easier to pass by this section of Long Street now.	There is now a functioning MyCiti bus that is also more pleasant to wait at because there is not that much construction happening anymore.	Byron_Longstreet003.jpg	taniaphel
PhD FRP081	14/05/06	12h10	Long Street	Politic Islam Voting	I took this photo because of the strong sense of community and physical presence the Islamic community have in Cape Town, especially around the CBD because of Bo-Kaap. This poster has a lot of relevance to the street lifestyle because of all the mosques; you most probably would not find this poster in Tamboerskloof for example.	Shop owners standing outside, it was also before the lunch rush and day before elections so the streets were quiet.	Byron_longstreet001_RESIZE.jpg	taniaphel
PhD FRP080	14/08/09	18h38	Long Street	Car marshalls Check-out In-form	People of Cape Town complain all the time about the car marshalls and how expensive parking is, often giving the marshalls a hard time and being reluctant to pay. Then at the end of the day, they must all stand in a long line waiting to check-out for the day. Just the image of them standing in a line like that implies a production line - we forget the human side.	There were people walking up and down the street; people going home from work.	byron_parkingmarshalls.jpg	taniaphel
PhD FRP079	14/04/19	N/A	Long Street	Old woman Aimless African	I saw this woman walking up Long Street; She had a weird stumbling walk that showed her age and fragility. But it also seemed as if she was confused about where was going.	People were just walking as if nothing was out of the ordinary. Such a frail woman walking and no one even looked at her.	old_lady.jpg	taniaphel

Appendix 5: Photography memo extract

APPENDIX F CCTV CAMERA (SURVEILLANCE) EXAMPLES



Appendix 6: Examples of CCTV camera (Surveillance)

APPENDIX G PARTICIPANT COMMENTS FOLLOWING EXPERIMENT

Appendix 7: Participant comments following experiment

ID	Birth	Gender	Age	Participant comment
2	South Africa	Male	18-29	Think this will help.
3	Congo	Male	40-49	Please try harder combating crime on Long Street.
6	South Africa	Male	20-29	We need change, a young group of mixed races of males and females running SA.
13	South Africa	Male	20-29	I wish the government would consult the civilians in their decision making process.
24	South Africa	Male	20-29	Awesome questions.
25	Rwanda	Male	40-49	The South African government is doing their best to make the people happy.
26	South Africa	Male	20-29	Good luck.
29	South Africa	Male	20-29	Enjoyed the questions.
32	South Africa	Male	20-29	Useful research.
33	South Africa	Female	20-29	I was not aware of the little impact we as a society have on government policies. This is an eye opener and should be implemented in South Africa. Our voices need to be heard.
43	South Africa	Male	20-29	Smart idea to influence our countries motive, opinion and belief by conducting this survey.
44	South Africa	Female	18-29	It is a good way of getting to know others think.
45	South Africa	Male	20-29	Interesting
49	South Africa	Male	50-59	Great initiative.
51	South Africa	Male	50-59	If we allow the borders to be more open it might lead to more crime and problems in the country.
52	Zambia	Female	20-29	Very interesting would be interested in the outcome
55	Malawi	Male	40-49	Happy to participate.
59	South Africa	Male	20-29	Interesting.
65	France	Female	50-59	I am an ecologists neither liberal nor conservative.
68	South Africa	Female	20-29	I strongly believe lights on will make Long Street safer.
70	South Africa	Female	20-29	I am optimistic about the prospects of having publicly accessible cameras around pick pocketing hotspots such as Long Street. That said, I can also understand the apprehension towards it from the corporate sector (cost of installation) and law enforcement.
71	Kenya	Male	50-59	Interesting topic, love the interactive prototype.
74	South Africa	Male	40-49	There is a lot of crime in Long Street especially from immigrants.
77	South Africa	Male	20-29	Great innovation.
78	France	Female	20-29	Camera is bad according for the people freedom.
80	South Africa	Male	40-49	I like the idea of community involvement and participation.
83	Zimbabwe	Male	20-29	Great research.
84	Burundi	Male	30-39	Good to get the people opinion and their views people need to have a platform to say their views.
86	South Africa	Male	20-29	Very informative survey.
87	South Africa	Male	30-39	Interesting.
93	South Africa	Male	30-39	Government uses money for other purposes they should give housing and help eradicate poverty.
97	Italy	Male	20-29	Great.
100	South Africa	Female	20-29	Everything in moderation and respect for each other.
112	South Africa	Male	30-39	Create jobs for people think of homeless people, stop government corruption.
121	South Africa	Male	30-39	I wish the results of this research could end up making a difference.
122	South Africa	Female	40-49	Government should be for the people by the people.
123	South Africa	Male	30-39	We are a multicultural community; we should learn to respect each other.
124	South Africa	Male	30-39	Good research.

ID	Birth	Gender	Age	Participant comment
127	United Kingdom	Male	50-59	It perhaps should be more in-depth and more specific.
128	South Africa	Female	40-49	Cameras and lights help to keep streets safer.
138	South Africa	Male	30-39	Thank you.
141	South Africa	Male	20-29	Very interesting research.
168	Tanzania	Male	20-29	Yes, is good research.
172	South Africa	Male	30-39	Think it will be great for Long Street, as pick pockets and drugs are out of hand. Please contact Long Street association to see if this system will be viable.
174	Ghana	Female	30-39	Country should be accommodating.
177	South Africa	Male	20-29	I am impressed with the method of survey.
178	South Africa	Male	30-39	Relevant to use of urban spaces and social cohesion local initiatives.
179	South Africa	Male	20-29	It is quite good for us to understand the behaviour of others have an impact on us, more especially dealing with social issues.
180	Namibia	Male	20-29	Good idea to make safety in South Africa a number one priority. Can never be to safe.
181	Rwanda	Female	20-29	More security in Long Street would lead to a safer community.
187	South Africa	Female	20-29	I appreciate being included, like I have a say in Long Street.
190	South Africa	Male	20-29	No to cameras because it makes police lazy.
191	South Africa	Male	30-39	This such great research, as it gets more people involved.
193	South Africa	Male	20-29	Government should be afraid of their people, not the other way around.

True exploration is sans conclusion.